

STIC Search Report Biotech-Chem Library

STICIDARDASS

TO: Terra Gibbs

Location: REM-2D10&2C18

Art Unit: 1635

Wednesday, March 30, 2005

Case Serial Number: 09/888164

From: Barb O'Bryen

Location: Biotech-Chem Library

Remsen 1a69

Phone: 571-272-2518

MOB

barbara.obryen@uspto.gov

Search Notes	



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STIC-Biotech/ChemLib

148369

From: Sent:

Gibbs, Terra

Monday, March 21, 2005 2:46 PM

To: Subject: STIC-Biotech/ChemLib sequence search request...

Please perform a search of SEQ ID NO:29 of USSN 09/888,164 in all commercial databases, pending files, and pre-grant pubs. Please perform this search as:

a) a regular search for any sequences comprising SEQ ID NO:29 and b) a length limited search wherein the length of the oligo hits is limited to less than 50 nucleotides in length.

Terra Cotta Gibbs, Ph.D. Art Unit 1635 Remsen Building 2D10 Mailbox 2C18 571-272-0758

STAFF USE ONLY

Searcher:
Searcher Phone: 2Date Searcher Picked up:
Date Completed:
Searcher Prep/Rev. Time:
Online Time:

Type of Search

NA#:	AA#:
	SPDI:
S/L:	Oligomer:
Encode/Trans	sl:
Structure#:_	Text:
nventor:	Litigation:

Vendors and cost where applicable STN:_____

SEQUENCE SYSTEM:__ WWW/Internet:___

Other(Specify):_

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Copyright

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.

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Maximum Match 100%
Listing first 45 summaries
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165373 Sequence 22
AR488384 Sequence 21
165372 Sequence 21
165376 Sequence 25
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8	18		M76689 Hepatitis B					E12995 DNA encodin	DNA encod	875619 precore reg		-	AX151115 Sequence	E10006 Human HBV P	I92348 Sequence 9	AR028629 Sequence	123307 Sequence 10	AR279728 Sequence	AR000194 Sequence	165371 Sequence 20	I65370 Sequence 19	AX250613 Sequence	E09725 Primer OAL4	AR000182 Sequence	A18804 oligonucleo

ALIGNMENTS

RESULT 2 155199 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL RESULT 1 A66874 LOCUS ORIGIN REFERENCE FEATURES Query Match Best Local Similarity Matches 16; Conserva source Unknown. Unclassified. 1 (bases 1 to 16) 1 (bases 1 to 16) Stuyver,L., Rossau,R. and Maertens,G. METHOD FOR TYPING AND DETECTING HBV Patent: WO 9740193-A 41 30-OCT-1997, INNOGENETICS NV (BE) Sequence 48 from I55199 GI:2476 Unknown. A66874 16 pp Sequence 41 from Patent WO9740193. A66874 unclassified. unidentified unidentified A66874.1 GI:4538245 I55199 AAAGCCACCCAAGGCA 16 AAAGCCACCCAAGGCA Conservative /organism="unidentified" /mol_type="unassigned DNA" /db_xref="taxon:32644" Location/Qualifiers 1. .16 GI:2476402 100.0%; Score 16; DB 6; 100.0%; Pred. No. 1.3e+03; tive 0; Mismatches 0; patent US 16 5646262. ď DNA DNA Length 16; Indels linear linear PAT 07-OCT-1997 PAT 29-MAR-1999 0, Gaps 0

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Stuyver,L., Rossau,R. and Maertens,G.
Method for typing and detecting HBV
Patent: US 6709912-A 41 23-MAR-2004;
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1 (bases 1 to 16)
Korba, B.E. and Gerin, J.L.
Antisense ogligonuclectides against Hepatitis
Patent: US 6503533 A 48 07-JAN-2003;
Location/Qualifiers
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Patent: US 5667974-A 22 16-SEP-1997;
Patent Location/Qualifiers
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1 (bases 1 to 18)
Stuyver,L., Rossau,R. and Maertens,G.
METHOD FOR TYPING AND DETECTING HBV
Patent: WO 9740193-A 49 30-OCT-1997;
INNOGENETICS NV (BE)
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Birkenmeyer,L. and Mushahwar,I.K.
Method for detecting nucleic acid sequences
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Birkenmeyer, L. and Mushahwar, I.K.
Method for detecting nucleic acid sequences using
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Patent: US 5667974-A 21 16-SEP-1997;
Location/Qualifiers
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Birkenmeyer,L. and Mushahwar,I.K.
Method for detecting nucleic acid sequences using competitive
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Stuyver,L., Rossau,R. and Maertens,G.
Method for typing and detecting HBV
Patent: US 6709812-A 49 23-MAR-2004;
                                                                                                                                                                       Unknown.
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                                                                                                                                                                                    Unknown.
                                                                                                                                                                                                            165376.1
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oligonucleotide primer.
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AR086981 20 bp
Sequence 18 from patent US 5985662.
AR086981 GI:10013747
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synthetic construct
other sequences, artificial
1 (bases 1 to 20)
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ilarity 100.0%;
Conservative 0;
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MITSUBISHI CHEM CORP

S None
OC Artificial sequen
PN JP 195033797-A/5
PD 03-FEB-195
PF 21-JUL-1993 JP 19
PI UCHIDA TOSHIKAZU,
PC CO7K14/02,C12N15/
CC strandedness: Sil
CC topology: Linear
CC hypothetical: No
CC Anti-sense: No;
FH Key
FI Source
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Anderson, K.P. and Cowsert, L.M.
Antisense inhibition of hepatitis B
Patent: US 5985662-A 18 16-NOV-1999;
Location/Qualifiers
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JP 1995033797-A/5.
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Uchida, T. and Shikata, T.
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JP 195033797-A/5
03-FEB-195
21-JUL-1993 JP 1993180314
UCHIDA TOSHIKAZU, SHIKATA TOSHIO
CO7K14/02,C12N15/09,C12P21/02,G01N33/53,G01N33/569,G01N33/576;
strandedness: Single;
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hypothetical: No;
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Unclassified.

B 1 (bases 1 to 21)

AS Korba,B.E. and Gerin,J.L.

Antisense oligonucleotides against hepatitis B v

NAL Patent: US 5646262-A 45 08-JUL-1997;
Location/Qualifiers

1 .21 """known" " "NA"
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Anderson,K.P. and Cowsert,L.M.
Antisense inhibition of hepatitis B
Patent: US 5985662-A 7 16-NOV-1999;
Location/Qualifiers
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Conservative 0; Mismatches
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/mol_type="unassigned
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AAQ13771	ADM00158	ADM00161	ADL99637	ADM00804	ADM00284	ADM00807	ADM00806	ADM00160	AAT71789	AAT71785	AAV14133	AAT71786	ADM60244	ADM59621	ACD53930	ACD55710	ADB68575	AAV14125	AAT18256	ID
Aaq13771 HBV prime	Adm00158 Hepatitis	Adm00161 Hepatitis	Adl99637 Hepatitis	Adm00804 Hepatitis	Adm00284 Hepatitis	Adm00807 Hepatitis	Adm00806 Hepatitis	Adm00160 Hepatitis	Aat71789 Hepatitis	Aat71785 Hepatitis	Aav14133 Probe HBP	Aat71786 Hepatitis	Adm60244 Hepatitis	Adm59621 Hepatitis	Acd53930 HBV zinzy	Acd55710 HBV amber	Adb68575 NG3 A-L-P	Aav14125 Probe HBP	Aat18256 HBV epsil	Description

The present sequence, which inhibits the replication of hepatitis B virus (HBV) in a host cell, is a single stranded antisense oligonucleotide that binds the epsilon encapsidation sequence of a mRNA intermediate derived from the HBV genome. The 1st nucleotide of the oligonucleotide corresponds to nucleotide 1884 of the HBV ayw subtype C gene, using the numbering scheme from the sequence published by Galibert et al., Nature

Single stranded oligo:nucleotide(s) for inhibiting replication of hepatitis B virus - are anti-sense to portions of the epsilon encapsidation sequence and modulate HBV function.

WPI; 1996-116796/12.

Korba BE,

Gerin JL;

Claim 15; Page 44; 56pp; English.

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100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
70	61	61	54	50	48	48	44	44	32	30	23	23	23	23	23	21	21	21	21	21	21	20	20	20
N	ø	ω	w	N	w	w	N	N	4.	N	1	4	ຎ	N	N	;	9	N	N	N	N	N	N	N
AAQ28267	ACA62424	ABK14697	AAZ94421	AAQ81436	ABK14696	ABK14698	AAT71783	AAT71784	AAS14628	AAV29303	ADM00880	AAD19005	AAQ81424	AAT03266	AAQ13770	ADM00924	ADA13842	AAT70936	AAT18253	AAT18255	AAQ92909	AAT70947	AAQ85970	AAQ13772
Aaq28267 Sequence	Aca62424 Hepatitis	Abk14697 HBV prege	Aaz94421 Hepatitis	Aaq81436 HBV targe	RNA	Abk14698 HBV encap	Aat71783 Hepatitis	Aat71784 Hepatitis	Aas14628 NASBA mol	Aav29303 Hepatitis	Adm00880 Hepatitis	Aad19005 Hepatitis	Aaq81424 HBV hybri	Aat03266 Hepatitis	Aaq13770 HBV prime	Adm00924 Hepatitis	Adal3842 Short int	Aat70936 HBV core	Aat18253 HBV epsil	Aat18255 HBV epsil	Aaq92909 Antiviral	Aat70947 HBV pre-g	Hepa	

ALIGNMENTS

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AAT18256 standard;
                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                              Inhibition; replication; hepatitis B virus; HBV; antisense; mRNA; epsilon; encapsidation; sequence; intermediate; subtype ayw; C gene; treatment; chronic infection; modulation; translation; transcription; release; host cell; ss.
                                                                                                                                                                                                                                                                      HBV epsilon encapsidation mRNA intermediate antisense oligo L2c.
                                                                                                                                                                                                                                                                                      17-SEP-1996
                                                                                                                                                                                                                                                                                                      AAT18256;
                                                                                                                                                  28-JUL-1994;
                                                                                                                                                                 28-JUL-1995;
                                                                                                                                                                                 08-FEB-1996.
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                                                                                                                                  (GEOU ) UNIV GEORGETOWN.
                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                      DNA;
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RESULT 2
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This sequence represents a probe for the preCore region of hepatitis b virus (HBV). This sequence can be used in the method of the invention for detection and/or genetic analysis of hepatitis B virus (HBV) in a sample. The method comprises: (a) optionally releasing, isolating or concentrating polynucleic acids (I) in the sample with at least I suitable primer pair; (b) hybridising (I) with a combination of at least 2 nucleotide probes, which are applied to known locations on a solid support and hybridise specifically to mutant target sequences chosen from the HBV RT pol gene region, HBV preCore region, HBsAg region and/or HBV genotype specific target sequences, or their complements or U for T homologues; (c) detecting the hybrids formed in step (b), and inferring the HBV genotype and/or mutants present in the sample from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
Hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281: 646 (1979). A compsn. comprising the oligonucleotide may be used to treat chronic HBV infection by modulating a HBV related function, e.g. translation, transcription, encapsidation, replication and release from a host cell. The effect of the oligonucleotide on the levels of HBV DNA in the extracellular medium (VIR. DNA), intracellular viral replicative intermediates (HBV RI), intracellular viral RNA (HBV RNA), HBV surface antigen protein (HBSAg), HBV eantigen protein (HBBAg) and HBV core antigen protein (HBCAg), given as the EC(90) (microM, 9 days of treatment) or ND (not determined), are VIR. DNA (1.6), HBV RI (5.1), HBV RNA (>20), HBSAg (>20), HBBAg (>20) and HBCAG (18.5)
                                                                                                                                                                                                                                                         genotype, mutations
                                                                                                                                                                                                                                                                                                                                                    Stuyver L,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probe; hepatitis b virus; HBV detection; RT pol region; genetic analysis; preCore region; HBsAg region; genotype specific target;
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19-MAY-1998
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                                                                                                                                                                                                                                                        and/or genetic analysis of hepatitis B virus - of preCore mutations, vaccine escape mutations and selected by treatment with drugs.
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i RT gene
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                               21-JUN-2002; 2002WO-US019908
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modified_base
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                                                                                                                                                                                                                                                                                                     (CELL-)
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The invention relates to a novel homogeneous conjugate comprising a hepatic ligand, bifunctional linker and biologically stable oligomer binds to a sequence in a hepatic virus or pathogen and is released fr

New homogeneous prodrug conjugof pathogen-specific oligomer

conjugate con igomer useful

containing hepatic ligand for de ful for treating liver infections

for delivery

Claim

7; Page 83; 107pp; English

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RESULT 4
ACD55710/c
ID ACD557
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Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the conjugate by hydrolysis or reduction. The conjugate of the invention may be useful during the treatment of liver diseases including chronic viral hepatitis, cirrhosis, malaria, viral or protozoan infection and cancer, such as hepatocellular carcinoma (HCC). The current sequence is that of the NG3 A-L-P conjugate DNA component of the invention which was used to target the Hepatitis B virus (HBV) pregenome (e-site).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme amberzyme; G-cleaver ribozyme; decoy molecule; aptamer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 16
                                                                                                WPI; 2003-229207/22
                                                                                                                                                                                                                                                                                                     26-MAR-2001; 2001US-00817879.
08-JUN-2001; 2001US-00877478.
08-JUN-2001; 2001US-0296876P.
24-OCT-2001; 2001US-0335059P.
                                                                                                                                                                                                                                                                                                                                                                                            17-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B
                     Example 1; Page 207; 387pp; English
                                                           Novel compound useful for hepatocellular carcinoma,
                                                                                                                                                                                                                                         (MACE/)
                                                                                                                                                                                                                                                                                         05-DEC-2001; 2001US-0337055P
                                                                                                                                                                                                                                                                                                                                                                   26-MAR-2002; 2002WO-US009187
                                                                                                                                                                                                                                                                                                                                                                                                                     WO200281494-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HBV amberzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACD55710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACD55710 standard;
                                                                                                                                                                                                                                                                (RIBO-)
                                                                                                                                                                                                                 MORR
                                                                                                                   ×,r
                                                                                                                                                                                                              ) MACEJAK D.
) MCSWIGGEN J.
) MORRISSEY D.
                                                                                                                                                            LEE P.
DRAPER K.
ROBERTS E.
                                                                                                                                                                                               PAVCO P.
                                                                                                                                                                                                                                                                RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGCCACCCAAGGCA 16
                                                                                                                       Macejak D,
Roberts E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiinflammatory; substrate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                              virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     substrate sequence #183.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 C;
                                                                     for
                                                                                                                                   Mcswiggen
                                                           treating cirrhosis, liver failure, or condition associated with hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВÞ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16; DB 10;
Pred. No. 1.5e+02;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 T; 0 U; 0 Other;
                                                                                                                                   ŗ,
                                                                                                                                   Morrissey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                      Pavco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inozyme; zinzyme;
                                                                                                                                   'n
                                                                                                                                     Lee
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                                                                                                                                     ש
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The present invention relates to nucleic acid molecules which modulate

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Macejak D,

Mcswiggen

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Morrissey

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Pavco

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Lee

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RESULT 5
ACD53930/c
ID ACD539
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CC the synthesis, expression and/or stability of Hepatitis C virus (HCV) or CC Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense CC and enzymes, cucleic acids such as hammerhead ribozymes, DNAzymes, CC inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed CC are nucleic acid decoy molecules and aptamers that bind to HBV reverse CC transcriptase and/or HBV reverse transcriptase primer sequences, as well CC as oligonucleotides that specifically bind the Enhancer I region of HBV CC DNA. The nucleic acids may be used to modulate the expression of HBV CC genes and HBV viral replication. Also disclosed is a method for screening CC compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds CC disease states related to HBV and HCV infection, replication and gene CC expression such as cirrhosis, liver failure, and hepatocellular CC carcinoma. The present sequence represents a substrate for one of the HBV CC disclosed in the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 16
                                                                                                                                                                       26-MAR-2001; 2001US-00817879.
08-JUN-2001; 2001US-00877478.
08-JUN-2001; 2001US-0296876P.
24-OCT-2001; 2001US-0335055P.
                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis antisense; enzymatic nucleic acid; hammerhead ribozyme; DNxyme; nozyme; zinzyme amberzyme; G-cleaver ribozyme; decoy molecule; aptamer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
                                                                                   (MACE/)
(MCSW/)
(MORR/)
                                                                                                                              (RIBO-)
(BLAT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACD53930 standard;
                                                                                                                                                                                                                                                                 26-MAR-2002;
                                                                                                                                                                                                                                                                                             17-OCT-2002
                                                                                                                                                                                                                                                                                                                                                      Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                   virucide; antiinflammatory; substrate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACD53930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17
                                                                      (PAVC/
                                                                                                                                                                                                                                                                                                                          WO200281494-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HBV zinzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AAAGCCACCCAAGGCA 16
                                                                                   BLATT L.
MACEJAK D.
MCSWIGGEN J.
MORRISSEY D.
                                         DRAPER K.
                                                                                                                               RIBOZYME PHARM
BLATT L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                        ROBERTS
                                                                     PAVCO P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGCCACCCAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    substrate sequence #100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 0
                                                                                                                                                                                                                                                                 2002WO-US009187.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 C; 7 G; 0 T; 7 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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Pred. No. 1.5
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                   88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                           inozyme; zinzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ٥,
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RESULT 6
ADMS9621/c
ID ADMS962
XX ADMS96
XX ADMS96
XX Hepati
XX Hepati
XX Hepati
XX Hepati
XX Usirho
XX Usirho
XX Usirho
XX IS-JAN
XX IS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to nucleic acid molecules which modulate the synthesis, expression and/or stability of Hepatitis C virus (HCV) or Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes, C inozymes, zinzymes, and G-cleaver ribozymes. Also disclosed are nucleic acid decoy molecules and G-cleaver that bind to HBV reverse transcriptase primer sequences, as well as oligonucleotides that specifically bind the Enhancer I region of HBV C DNA. The nucleic acids may be used to modulate the expression of HBV genes and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and disease states related to HBV and HCV infection, replication and gene expression such as cirrhosis, liver failure, and hepatocellular ribozyme, inozyme, G-cleaver, zinzyme, DNAzyme or amberzyme sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 16
                                                                                                        14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B virus; HBV, ss; enzymatic nucleic acid; RNA cleavage; hepatitis B virus infection; hepatitis; hepatocellular carcinoma; cirrhosis; liver failure; lamivudine; interferon; genetic drift; virucide; hepatotropic; antiinflammatory; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel compound useful for treating cirrhosis, liver failure, hepatocellular carcinoma, or condition associated with hepatitis C virus
(DRAP/)
(BLAT/)
                                                                                                                                                                                                                                                                                                                                                                                                                         US2004054156-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADM59621 standard; RNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Draper
                                                                                                                                                                                                                                                                                                             15-JAN-2003; 2003US-00342902.
                                                                                                                                                                                                                                                                                                                                                                    18-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AAAGCCACCCAAGGCA 16
DRAPER K.
BLATT L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                              92US-00882712.
92US-00193627.
99US-00436430.
2000US-00531025.
2000US-00536385.
2000US-00696347.
2001US-008977478.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       virus (HBV) RNA target sequence #1755.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; 3 C; 7 G; 0 T; 7 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .0%;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>,</u>
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RESULT 7
ADM60244/c
ID ADM60244 s
XX ADM60244;
AC Hepatitis
KW Hepatitis
KW Hepatitis
KW Virucide;
AC Virucide;
AC VIRAP-200
AC ADMAR-200
AC ADMAR-2
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Best Local S
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                                                                                                                                         14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           specifically cleaves RNA derived from hepatitis B virus (HBV) and comprising one or more binding arms, without requiring the presence of a 2'-OH group within the molecule for activity. The nucleic acids are useful for treating hepatitis B virus infection, hepatitis, hepatocellular carcinoma, cirrhosis and liver failure, either alone or in combination with other therapies such as lamivudine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this parent is also available in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hepatitis B virus; HBV; ss; enzymatic nucleic acid; RNA hepatitis B virus infection; hepatitis; hepatocellular cirrhosis; liver failure; lamivudine; interferon; genet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel enzymatic nucleic acid molecule such as DNAzymes and inozymes specifically cleaving RNA derived from hepatitis B virus and comprione or more binding arms, useful for treating hepatitis and cirrhos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 17 BP; 0 A; 3 C; 7 G; 0 T; 7 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       invention. electronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an enzymatic nucleic acid molecule that specifically cleaves RNA derived from hepatitis B virus (HBV) an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 1755; 122pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hepatitis B virus (HBV) RNA target sequence #2378.
                                                                                                                                                                                                                                                                                                                                            15-JAN-2003; 2003US-00342902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2004-247781/23.
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  DRAPER K.
BLATT L.
MCSWIGGEN J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hepatotropic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          format from USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                      94US-00193627.
99US-00436430.
2000US-00531025.
2000US-00636385.
2000US-00696347.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   virus; HBV; ss; enzymatic nucleic acid; RNA cleavage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                 2001US-00877478
                                                                                                                                                                                                                                                                                     92US-00882712
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ×
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antiinflammatory; cytostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17
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Pred. No. 1.5e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     carcinoma;
ic drift;
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Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               comprising one or more binding arms, without requiring the presence of a 2'-OH group within the molecule for activity. The nucleic acids are useful for treating hepatitis B virus infection, hepatitis, hepatocellular carcinoma, cirrhosis and liver failure, either alone or in combination with other therapies such as lamivadine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this patent is also available in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel enzymatic nucleic acid molecule such as DNAzymes and inozymes specifically cleaving RNA derived from hepatitis B virus and comprising one or more binding arms, useful for treating hepatitis and cirrhosis.
WPI; 1997-052367/05
                        Birkenmeyer L,
                                                                                                                              19-DEC-1996.
                                                                                                                                                        WO9640996-A1
                                                                                                                                                                                                        misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                       AAT71786 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 2378; 122pp; English.
                                                                            07-JUN-1995;
                                                                                                    03-JUN-1996;
                                                                                                                                                                                                                                             misc_difference
                                                                                                                                                                                                                                                                                      Synthetic
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                                                                                                                                                                                                                                                                                                                                        Hepatitis B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 specifically
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                                                  ABBOTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    format from USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP; 0 A; 3 C; 7 G; 0 T; 7 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                          Virus
                                                                                                                                                                                                                                                                                                                chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cleaves RNA
                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                           95US-00480220
                                                                                                    96WO-US008429
                        Mushahwar
                                                                                                                                                                                                           /note=
                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                        precore antigen wild-type target sequence primer.
                                                                                                                                                                                                                                                                                                              reaction;
                                                                                                                                                                                                                                                                                                                                                                    entry)
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"Phosphorylated"
                                                                                                                                                                                 "Haptenated with fluoroscein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               an enzymatic nucleic acid molecule derived from hepatitis B virus (HBV
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                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
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                                                                                                                                                                                                                                                                                                              internal standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; DB 12;
. 1.5e+02;
                                                                                                                                                                                                                                                                                                              amplification;
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RESULT 9
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Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild-type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
                                                                                                       genotype,
mutations
                                                                                                                            Detection
                                                                                                                                                   WPI; 1997-535867/49.
                                                                                                                                                                           Stuyver L,
                                                                                                                                                                                                                         19-APR-1996;
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                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                          mutation detection; ss.
                                                                                                                                                                                                                                                                                                                                                                                                         Probe HBPr49
                                                                                                                                                                                                                                                                                                                                                                                                                                 27-AUG-2003
19-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV14133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV14133 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                       Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                     preCore region; HBsAg region; genotype
                                                                                                                                                                                                                                                                                                                                                                                 Probe; hepatitis b virus; HBV detection; RT
                                                                                                                                                                                                  (INNO-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18
                                                                                                   and/or genetic analysis of hepatitis B virus preCore mutations, vaccine escape mutations \epsilon selected by treatment with drugs.
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                                                                                                                                                                                                                                                                                                                                                                                                                               (revised)
                                                                                                                                                                                                                                                                                                                                                                                                       for preCore region of HBV.
                                                                                                                                                                                                                                                97WO-EP002002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
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Pred. No. 1.5e+02;
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                                                                                                                                                                                                                                                                                                                                                                      region; genetic analysis; target;
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virus (HBV). This sequence can be used in the method of the invention for detection and/or genetic analysis of hepatitis B virus (HBV) in a sample. The method comprises: (a) optionally releasing, isolating or concentrating polynucleic acids (I) in the sample, and amplifying the relevant part of a suitable HBV gene in the sample.

for

Claim 5;

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27; 80pp; English.

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RESULT 10
AAT71785/c
ID AAT717
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XX HEV; 1
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   different nucleic mutant. The compos of HBV
                       A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction, and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild-type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Birkenmeyer L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                             Claim 14; Page 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quantitative detection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-052367/05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              ative detection of target nucleic acid sequence, can distinguish wild-type and mutant DNA types.
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chain reaction; internal standard; amplification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        virus precore antigen wild-type target sequence primer.
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                                                                                                                                                                                                                                                                                                                                                                                             40pp;
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                                                                                                                                                                                                                                                                                                                                                                                             English
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          esp. hepatitis
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RESULT 11
AAT71789/c
ID AAT71789/c
ID AAT71789/c
ID AAT7171
XX AAT717
XX HBV;
XX WO96,
XX WO9
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8
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Best Local S
Matches 16
                                                     Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                    nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen mutant target sequence (AAT71784). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
                                                                                                                                                Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                     A novel method has been produced for detecting the amount of a target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Quantitative detection of target nucleic acid sequence, virus - can distinguish wild-type and mutant DNA types.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 14; Page 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-052367/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Birkenmeyer L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JUN-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hepatitis B
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                                                       16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
     AAAGCCACCCAAGGCA 16
                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   virus precore antigen mutant target sequence primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 0 A; 3 C; 8 G;
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95US-00480220.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note= "Haptenated with fluorescein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reaction; internal standard; amplification; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40pp; English.
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                                                                         100.0%;
                                                                                                                                                     3 C;
                                                                                                                                                     7 G;
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Pred. No.
                                                                           Score 16; DB 2;
Pred. No. 1.5e+02
                                                                                                                                                     8 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 T; 0 U; 0 Other;
                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                     0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.5e+02;
                                                                                                                                                     0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 19;
                                                                                                  Length 19;
                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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                                                       Gaps
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RESULT 12
ADM00160/c
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                                             The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatitis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii) a method of generating a library of siNA constructs having predetermined complexity; (iii) a cell containing one or more siNA molecules; (iv) a kit containing a siNA molecule which can be used to modulate the expression of a HBV target gene in a cell, tissue or corganism, and (v) a method for synthesising a siNA molecule. The siNA molecule is adapted for use to treat HBV infection, and comprises a sense and an antisense region, where the antisense region comprises sequence complementary to an RNA sequence encoding HBV and the sense region comprises the sense region and the second fragment comprises the comprises the sense region and the second fragment comprises the antisense region and the second fragment comprises the solar antisense region and the second fragment comprises the solar antisense region and the second fragment comprises the
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07-FEB-1994; 94US-00136430.
20-MAR-2000; 2000US-00531025.
09-AUG-2000; 2000US-00531035.
24-OCT-2000; 2000US-00636385.
24-OCT-2000; 2000US-00696347.
08-JUN-2001; 2001US-00897478.
08-JUN-2001; 2001US-026876P.
24-OCT-2001; 2001US-0335059P.
05-DEC-2001; 2001US-0335059P.
05-DEC-2001; 2002US-036786P.
11-MAR-2002; 2002US-0363124P.
26-MAR-2002; 2002US-0363124P.
26-MAR-2002; 2002US-036782P.
29-AUG-2002; 2002US-0406784P.
05-SEP-2002; 2002US-0406784P.
05-SEP-2002; 2002US-0406378P.
                  antisense
connected
                                                                                                                                                                                                                                                                                                                                                                                                                New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MORR/)
(MCSW/)
(BEIG/)
                                                                                                                                                                                                                                                                                                                                                           Claim 11; Page 48; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-901032/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADM00160;
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                                                                                                                                                                                                                                                                                                                                                                                                 characterizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Morrissey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis B virus short interfering nucleic acid (siNA) #576
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ) MORRISSEY D.
) MCSWIGGEN J A.
) BEIGELMAN L.
region comprise separate oligonucleotides, and are covalently via a linker molecule. The linker molecule is a polynucleotide a non-nucleotide linker. The sense region comprises a 3'-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
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                                                                                                                                                                                                                                                                                                                                                                                                 gene function.
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RESULT 13
ADM00806
ID ADM00
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Best Local S
Matches 16
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06-JUN-2002;
29-AUG-2002;
05-SEP-2002;
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24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
                                                                                                                                                                                                                                                                        09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
                                                                                                                                                                                                                                                                                                                       14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            terminal overhang and the antisense region comprises a 3'-terminal overhang. The 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region 3'-terminal overhang is complementary to RNA encoding HBV. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to inhibit activity of target genes in a pathway to determine the function of uncharacterised genes in gene function analysis. The siNA molecules may also be used in clinical, industrial, environmental, agricultural and/or research settings. The present sequence represents 1 of 1504 HBV siNA molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 0 A; 3 C; 9 G; 0 T; 7 U; 0 Other;
                                                                                                     (MORR/)
(MCSW/)
(BEIG/)
                                                                                                                                                                                                                                                                                                                                                                        16-SEP-2002; 2002US-00244647
                                                                                                                                                                                                                                                                                                                                                                                                                      US2003206887-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                              Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hepatitis B virus short interfering nucleic acid (siNA) #1222.
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                                                                              Morrissey
                                                                                                                                                                                                                                                                                                             20-MAR-2000;
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                                                                                                                   MORRISSEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 100.
16; Conservative
                                                                                                      BEIGELMAN
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                                                                                                                                                                                                             2001US-0296876P.
2001US-0335059P.
2001US-0337055P.
2002US-0358580P.
2002US-0363124P.
                                                                                                                                                                                                                                                                         2000US-00531025.
2000US-00636385.
2000US-00696347.
2000US-00877478.
                                                                                                                                                    2002US-0406784P.
2002US-0408378P.
2002US-0409293P.
                                                                                                                                                                                        2002WO-US009187.
2002US-0386782P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry
                                                                             Mcswiggen
                                                                                                                                                                                                                                                                                                                                     92US-00882712
94US-00193627
                                                                                                                                                                                                                                                                                                                          99US-00436430.
                                                                                                      7 D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RNA; 19
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                                                                              JA,
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                                                                                Beigelman
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Pred. No. 1.5e+02;
; Mismatches 0;
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New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.

2003-901032/82.

Claim 11; Page 48; 72pp; English.

invention relates to a short interfering nucleic acid (siNA) molecule

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RESULT 14
ADM00807
ID ADM00
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC that down-regulates expression of a hepatitis B virus (HBV) gene by RNA
CC interference or that inhibits HBV replication. Also disclosed are the
CC following: (i) a method of modulating the expression of a HBV gene in a
CC tissue explant; (ii) a method of generating a library of slNA constructs
CC may a predetermined complexity; (iii) a cell containing one or more slNA
CC molecules; (iv)a kit containing a siNA molecule which can be used to
CC modulate the expression of a HBV target gene in a cell, tissue or
CC companism; and (v) a method for synthesising a slNA molecule. The slNA
CC molecule is adapted for use to treat HBV infection, and comprises a sense
CC complementary to an RNA sequence encoding HBV and the sense region
CC comprises sequence complementary to the antisense region. The slNA
CC molecule is assembled from 2 nucleic acid fragments, where one fragment
CC comprises the sense region and the second fragment comprises the
CC antisense region of the slNA molecule, where sense region and the
CC connected via a linker molecule. The linker molecule is a polynucleotide
CC inker or a non-nucleotide linker. The sense region comprises a 3'-
CC terminal overhang and the antisense region comprises a 3'-
CC molected via a linker molecule. The linker molecule is a polynucleotide
CC inhibit activity of target genes in a pathway so gene function, e.g. to
CC inhibit activity of target genes in a pathway to determine the function
CC inhibit activity of target genes in a pathway to determine the function
CC complementary to search settings. The present sequence represents 1 of 1504 HBV
CC sinA molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
09-AUG-2000;
08-JUN-2001;
08-JUN-2001;
                                                                                                                                                                                                                                                            Hepatitis B virus.
                                                                                                                                                                                                                                                                                            Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19
                                                                                                                                                         16-SEP-2002;
                                                                                                                                                                                          06-NOV-2003
                                                                                                                                                                                                                          US2003206887-A1.
                                                                                                                                                                                                                                                                                                                                                                                  20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADM00807 standard; RNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                     ADM00807
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                              virus
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                99US-00436430.
2000US-00531025.
2000US-00636385.
2000US-00696347.
2000US-00877478.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                         2002US-00244647
   2001US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of the invention.
                                                                                                       92US-00882712.
94US-00193627.
                                                                                                                                                                                                                                                                                                                                            short interfering nucleic acid (siNA) #1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16; DB 11; Length 19; Pred. No. 1.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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RESULT 15

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ADM00284 standard; RNA; 19

ВP

20-MAY-2004 ADM00284;

(first entry)

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                                                                                                                                       cc following: (i) a method of modulating the expression of a HBV gene in a cc tissue explant; (ii)) a method of generating a library of siNA constructs containing predetermined complexity; (iii) a cell containing one or more siNA common generating a reduction of a HBV gene in a cc modulate the expression of a HBV target gene in a cell, tissue or cc modulate the expression of a HBV target gene in a cell, tissue or cc modulate the expression of a HBV target gene in a cell, tissue or cc modulate the expression of a HBV target gene in a cell, tissue or cc complamentary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to an RNA sequence encoding HBV and the sense region comprises the sense region and the second fragments, where one fragment comprises the sense region and the second fragment comprises the consected via a linker molecule, where sense region and the coverland; the ror a non-nucleotide linker. The sense region comprises a 3'-terminal overhang and the antisense region comprises a 3'-terminal overhang and the antisense region comprises a 3'-terminal coverhang. The 3'A is useful for treating human hepatitis B virus conference rised genes in gene function analysis. The siNA molecules and settings. The siNA is useful for treating human hepatitis B virus conference region contained and the second comprises a 3'-terminal coverhang and for characterising pathway to determine the function of uncharacterised genes in gene function analysis. The siNA molecules cand/or research settings. The present sequence represents 1 of 1504 HBV cand cand cover the cove
                                              Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
06-JUN-2002;
                                                                                                                                     Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatitis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MORR/)
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                                                                                                                                                                                   molecules of the invention.
    ۳
                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MORRISSEY D.
MCSWIGGEN J A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BEIGELMAN L.
    AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; 2001US-0335059P.
; 2001US-0337055P.
; 2002US-0358580P.
; 2002US-0363124P.
; 2002US-0363124P.
; 2002US-0406784P.
; 2002US-0406784P.
; 2002US-0408378P.
; 2002US-0408378P.
                                                  Conservative
                                                                                                                                     BP; 8 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72pp; English.
                                                                                                                                       в C;
                                                100.0%; Score 16; DB 11; 100.0%; Pred. No. 1.5e+02; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JA,
                                                                                                                                       3 G;
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H;
                                                                                                                                          0
U;
                                                                                                                                          0 Other;
                                                                                            Length 19;
                                                    Indels
                                                  0,
                                                  Gaps
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Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                          Hepatitis
                                                                                                                     B virus short interfering nucleic acid (siNA) #700
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Hepatitis B virus

US2003206887-A1

16-SEP-2002; 2002US-00244647

14-MAY-1992; 07-FEB-1994; 08-NOV-1999; 24-OCT-2000; 08-JUN-2001; 08-JUN-2001; 20-MAR-2000; 92US-00882712 92US-0013627 99US-00436430 2000US-00531025 2000US-00696347 2001US-00696347 2001US-00877478 2001US-0296876P 2001US-0335059P 2001US-0336359P 2002US-0363124P 2002US-0363124P 2002US-0363124P 2002US-0363124P 2002US-0363124P 2002US-0363124P

26-MAR-2002; 06-JUN-2002; 09-SEP-2002; 29-AUG-2002; 2002US-0406784P. 2002US-0408378P. 2002US-0409293P.

(MORR/) (BEIG/)) MORRISSEY D.) MCSWIGGEN J A.) BEIGELMAN L.

Morrissey D, Mcswiggen JA, Beigelman ŗ

WPI; 2003-901032/82.

New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function. gene

Claim 11; Page 41; 72pp; English.

CC following: (i) a method of modulating the expression of a HBV gene in a C tissue explant; (ii) a method of generating a library of siNA constructs CC having predetermined complexity; (iii) a cell containing one or more siNA cC molecules; (iv)a kit containing a siNA molecule which can be used to C modulate the expression of a HBV target gene in a cell, tissue or creatism; and (v) a method for synthesising a siNA molecule. The siNA CC molecule is adapted for use to treat HBV infection, and comprises a sense cc and an antisense region, where the antisense region comprises sequence complementary to the antisense region. The siNA CC molecule is assembled from 2 nucleic acid fragments, where one fragment comprises the sense region and the second fragment properties the sense region and the second fragment comprises the cc antisense region comprise separate oligonucleotides, and are covalently connected via a linker molecule, where sense region and the cc antisense region comprise separate oligonucleotides, and are covalently coverhang. The 3'-terminal overhange each comprises a 3'-terminal coverhang is complementary to RNA cc infections, and for characterising pathways of gene function, e.g. to of uncharacterised genes in a pathway to determine the function cc of uncharacterised genes in gene function analysis. The siNA molecules The invention relates to a short interfering nucleic acid (siNA) that down-regulates expression of a hepatitis B virus (HBV) gene by RU interference or that inhibits HBV replication. Also disclosed are the molecule RNA

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                                          may also be used in clinical, industrial, environmental, agricultural and/or research settings. The present sequence represents 1 of 1504 HBV siNA molecules of the invention.
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Sequence 19 BP; 8 A; 7 C; 4 G; 0 T; 0 U; 0 Other;

Query Match Best Local S Matches 16 Local Similarity 16; Conservative 100.0%; 0 Score 16; DB 11; Pred. No. 1.5e+02; Mismatches Length 19; Indels <u>,</u> Gaps

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1 AAAGCCACCCAAGGCA 16 AAAGCCACCCAAGGCA 16

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Search completed: March Job time : 279 secs 29, 2005, 06:37:57

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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM nucleic - nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   geq
   length: 0
length: 2000000000
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Match
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1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           March 29, 2005, 05:28:20 ; Search time 98 Seconds (without alignments)
267.147 Million cell updates/sec
   10000
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16
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                                                                                                                                                                                                                                                                                     Length DB
    , Gapext 1.0
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US-08-281-106-48
US-09-159-269-48
US-09-155-885A-41
US-08-480-220A-25
US-08-480-220A-25
US-08-864-404-25
US-08-864-404-25
US-08-864-108-25
US-08-861-106-47
US-08-281-106-47
US-08-281-106-47
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US-08-281-106-47
US-08-281-106-47
US-08-281-106-47
US-08-281-106-47
US-08-281-106-47
US-08-28-50-269-45
US-08-480-220A-19
US-08-480-220A-19
US-08-864-404-19
US-08-864-404-19
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US-08-864-404-19
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Compugen Ltd.
         Sequence
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                                                                                                                                                                                                                                                                Sequence
 44, Appl
41, Appl
22, Appl
22, Appl
23, Appl
24, Appl
25, Appl
25, Appl
25, Appl
26, Appl
27, Appl
28, Appl
29, Appl
21, Appl
21, Appl
21, Appl
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26, Appl
27, Appl
27, Appl
28, Appl
29, Appl
29, Appl
29, Appl
20, Appl
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                                                                                         ; TOPOLOGY:
; ANTI-SENSE:
US-08-281-106-48
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US-08-281-106-48
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                                                  Query Match
Best Local Sim
Matches 16;
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Patent No. 5646262
                                                                                                                                                                              FILING DATE:

FILING DATE:

CLASSIFICATION: 514

ATTORNEY/AGENT INFORMATION:

NAME: BENT, Stephen A.

REGISTRATION NUMBER: 29,768

REFERENCE/DOCKET NUMBER: 6668:

TELECOMMUNICATION INFORMATION:

TELEPHONE: 202 672 5309

TELEFAX: 202 672 5399
                                                                                                                                                                                                                                                                        ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/281,106
                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: KORBA, Brent E.
APPLICANT: GERIN, John L.
TITLE OF INVENTION: Antisense Oligonucleotides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
                                                                                                                                                              TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 16 base pairs
TYPE: nucleic acid
                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111111111111111111
                                                               Similarity
                               AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/08281106
                                                                                                                                                                                                                                                                                                                                                          USA
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ilarity 100.0%;
Conservative 0
                                                                                                     YES
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US-08-090-735C-3
US-08-098-313-10
PCT-US92-01188-10
US-08-697-404-12
US-08-697-337A-9
US-08-075-520A-11
US-08-075-520A-11
US-08-075-520A-16
US-08-075-520A-2
US-08-075-520A-3
US-08-075-520A-3
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US-08-075-520A-3
US-08-075-520A-3
US-08-08-075-520A-3
US-08-08-075-520A-3
US-08-08-075-520A-3
US-08-480-511-56
PCT-US93-0109-56
US-09-243-320-56
US-08-480-173A-42
                                                   0
                                                                                                                                                                                                                 66683/112/GEUN
                                                              Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                    Mismatches
                                                                                                                                                                                                                                                                                                Version
                                                                       DB
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Result No.

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Length 16; Indels

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Minimum DB Maximum DB

Searched:

Sequence:

sequence sequence sequence sequence sequence sequence sequence

Sequence Sequence Sequence Sequence Sequence Sequence

25, Appl 10, Appl 10, Appl 10, Appl 12, Appl 12, Appl 11, Appl 11, Appl 11, Appl 16, Appl 16, Appl 16, Appl 16, Appl 16, Appl 17, Appl 18, Appl 19, Appl 19,

Sequence Sequence Sequence

Run on:

Database

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                                                                                                                                                                                                                                                                                                RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                   Sequence 41, Application US/09155885A Patent No. 6709812 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 48, Application Patent No. 6503533
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 904136
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/281,106
FILING DATE: <UDKNOWN>
ATTORNEY AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 66683/112/GEUN
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/199,269
FILING DATE: 25-No. 6505533-1998
CLASSIFFICATION: cUnknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD
                                                                                                                 MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                            APPLICANT: STUYVER, LIEVEN ROSSAU, RUDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ANTI-SENSE: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KORBA, Brent B.
GERIN, John L.
TITLE OF INVENTION: Antisense Oligonuclectides Against
Hepatitis B Viral Replication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
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                                                                                                                                                                                                                                                                                                                                                           AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 16 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 3000 K Street, N.W. CITY: Washington, D.C.
STATE: VIRGINIA COUNTRY: U.S.A.
                                      CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 202 672 5399
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100.0%; pr
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 22, Application US/08480220A Patent No. 5667974
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                           ZIP: 60064-3500

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PATENTIN Release #1.0, Ve
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/480,220A

PILING DATE: 07 JUN 1995

CLASSIFICATION: 435

CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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                   ATTORNEY/AGENT INFORMATION:
NAME: POTEMBSKi, Priscilla E.
REGISTRATION UNDEBER: 33,207
REFERENCE/DOCKET NUMBER: 5770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Birkenmeyer, Larr
APPLICANT: Mushahwar, Isa K.
                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
ELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: SADOFF, B.J.
NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
REGISTRATION NUMBER: 2551-5
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-44000
                                                                                                                                                                                                                                                                                                                           CITY: Abbott Park
STATE: Illinois
                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/155,885A FILING DATE: 08-Oct-1998 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (703)
                                                                                                                                                                                                                                                                                                                                                                      100 Abbott Park Road
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                     5770.US.01
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Pred. No.
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TELEFAX:

TELEPHONE: 708/937-6365 TELEFAX: 708/938-2623

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                                                                                       INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                     FILING DATA:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480
APPLICATION NUMBER: 07-70N-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tent No.
                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 60064-35008
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                     TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                               FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories D377/AP6D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Birkenmeye
APPLICANT: Mushahwar,
                             MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                  NAME: Porembski, Priscilla E. REGISTRATION NUMBER: 33,207
                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/864,404 FILING DATE: 28-MAY-1997
                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
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 NAME/KEY:
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Abbott Park
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5955598
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linear
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                             synthetic DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METHOD FOR DETECTING NUCLEIC ACID SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                              08/480,220
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US-09-155-885A-49
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                                                                                             US-09-155-885A-49
                                  Matches
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GENERAL INFORMATION:
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Best Local &
                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                           TELEFAX: (703) 816-4
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
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NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Veri
REPLICATION NUMBER: US/09/155,885A
RILING DATE: 08-Oct-1998
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION NUMBER: PCT/EP97/02002
REPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
les 16; Conserv
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                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: EP 96870053.4 FILING DATE: 19-APR-1996 ATTORNBY/AGENT INFORMATION:
                                                                                                                               HYPOTHETICAL: NO ANTI-SENSE: NO
                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: STUYVER, LIEVEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AAAGCCACCCAAGGCA 16
                                                   Similarity
   AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                              TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: ARLINGTON STATE: VIRGINIA
                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                             NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09155885A
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ilarity 100.0%;
Conservative (
                                  Conservative
                                                                                                                DESCRIPTION: SEQ ID NO:
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                                               100.0%; Score 16; DB 100.0%; Pred. No. 23;
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                                   Mismatches
                                                                                                                                                                                                                                                                                                                                2551-5
                                                                                                                49:
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                                                                DB 4; Length 18;
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                                  Gape
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US-08-480-220A-21/c
                                                                                                                                                                                                                                                                                 US-08-480-220A-25/c
                                                                                                                                                                                                                                                                                                   RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-480-220A-21
                                                                                                                                                                                                                        Sequence 25, Application US/08480220A Patent No. 5667974 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING LALL.

CLASSIFICATION: 435
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: POTembeki, Priscilla E.
REGISTRATION NUMBER: 33,207
REGISTRATION NUMBER: 5770.1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 10937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
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APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
NUMBER OF SEQUENCES: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                             APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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APPLICATION NUMBER: US,
FILING DATE: 07 JUN 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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                 COUNTRY:
                                                      CITY: Abbott Park
                                                                      STREET:
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                                                                                         DDRESSEE:
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60064-3500
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                                 Illinois
                                                                        E: Abbott Laboratories D377/AP6D
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100.0%; Pred. No.
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Patent No.
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Best Local
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FILING UATE: ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
NAME: Porembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.U
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                         ZIP: 60064-35008
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,220A
FILING DATE: 07 JUN 1995
CLASSIFICATION: 435
CLASSIFICATION: 435
                                                                                                                          APPLICATION NUMBER: US/08/864,404
FILING DATE: 28-MAX-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: synthetic DNA FEATURE:
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NAME: Porembski, Priscilla E.
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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APPLICANT: Mushahwar, I
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REFERENCE/DOCKET NUMBER: 57
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
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les 16; Conserv
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 100 Abbott Park Road CITY: Abbott Park
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5. 5955598
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Conservative (
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Pred. No. 23;
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 Query Match
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Best Local Similarity
                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
PILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: POZEMBER! 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            atent No. 5955598
GENERAL INFORMATION:
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                                                                                                                                                       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                         SEQUENCE CHARAC
                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                       FEATURE:
                                                                                    MOLECULE TYPE:
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APPLICANT: Mushahwar,
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                                                      NAME/KEY:
                                                                                                                         TYPE: nucleic acid
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TOPOLOGY: 11r
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                                          LOCATION:
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5. 5955598
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Pred. No.
 Score 16;
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 DB 2;
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Length 19;
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US-08-501-968-18
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US-08-501-968-18
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                                                                                                                                                     Sequence 18, Application PC/TUS9610984 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTS, 3.5 INCH, 1.44 Mb
COMPUTER: IBM 486
OPERATING SYSTEM: WINDOWS FOR WORKGROUPS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/501,968
FILLING DATE: herewith
                                                                                                     APPLICANT: Kevin Anderson and Lex Cowsert TITLE OF INVENTION: Antisense Inhibition of Hepatitis B TITLE OF INVENTION: Virus Replication
                                                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL:
ANTI-SENSE: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 20 nucleotides
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PRIOR APPLICATION DATA: no
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,
                                                                        NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Kevin Anderson and Lex Cowsert
TITLE OF INVENTION: Antisense Inhibition of Hepatitis B
TITLE OF INVENTION: Virus Replication
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
STREET: 210 Lake Drive East, Suite 201 CITY: Cherry Hill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: N
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: n
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                                                                                                                                                                                                                                                                                                                    16;
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210 Lake Drive East, Suite 201
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                                                                                                                                                                                                                                                                                                                    100.0%; Score 16; ilarity 100.0%; Pred. No. Conservative 0; Mismatch
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COUNTRY:

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US-08-281-106-45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                            APPLICATION NUMBER: US/08/281
FILING DATE:
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 6668
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5309
TELEPHONE: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (609) 779-848 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb
MEDIUM TYPE: STORAGE
COMPUTER: IBM 486
OPERATING SYSTEM: WINDOWS FOR WORKGROUPS
SOFTWARE: WORDDERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HYPOTHETICAL: N
ANTI-SENSE: YES
                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: KORBA, Brent E.

APPLICANT: GERIN, John L.

TITLE OF INVENTION: Antisense Oligonucleotides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: IS TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA: none
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,25
                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                           STREET: 3000 . ___
CITY: Washington, D.C.
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TOPOLOGY: linear
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3000 K Street, N.W.
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RESULT 15 US-08-287-337A-5

Sequence 5, Application US/08287337A Patent No. 5728518 GENERAL INFORMATION:

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; TOPOLOGY: line
; ANTI-SENSE: YES
US-08-281-106-45
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Patent No. 5
                                                              Matches
                                                                             Query Match 100.0%; Score 16; DB Best Local Similarity 100.0%; Pred. No. 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: KORBA, Brent E.
APPLICANT: GERIN, John L.
TITLE OF INVENTION: Antisense Oligonucleotides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
                                                                                                                                                                                                                                                                CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 6668
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEPHONE: 202 672 5399
                                                                                                                                                                                                                                    TELEX: 904136
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 21 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                          TOPOLOGY:
ANTI-SENSE:
                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                      LENGTH: 21 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
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                      1 AAAGCCACCCAAGGCA 16
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                                                                Conservative
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YES
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APPLICANT: Ellen Carmichael
TITLE OF INVENTION: ANTIVIRAL OLIGONUCLOETIDE
TITLE OF INVENTION: ANTIVIRAL OLIGONUCLOETIDE

NUMBER OF SEQUENCES: 9
COMERSON ANTIVIRAL OLIGONUCLOETIDE

ADDESSES: LAMIVE & COCKFIELD

ADDIAN TYPE: PLOPEY disk

COURTER TAMION DATA:

APPLICATION MUMBER: US/08/287,337A

ILLING DATE:
CLASSIFICATION MUMBER: US/08/287,337A

ILLING DATE:
CLASSIFICATION MUMBER: US/08/287,337A

ILLING DATE:
CLASSIFICATION MUMBER: TIT-109

TELECHOMMINICATION INFORMATION:
APPLICATION MUMBER: TIT-109

TELECHOMMINICATION INFORMATION:

APPLICATION MUMBER: TIT-109

TELECHOMMINICATION INFORMATION:

APPLICATION MUMBER: TIT-109

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APPLICATION MUMBER: TIT-109

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APPLICATION MUMBER:

APPLICATION MUMBER:

APPLICATION MUMBER:

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APPLICATION
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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*

5: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

6: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*

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8: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*

10: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*

11: /cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*

13: /cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*

14: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

15: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

16: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

17: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

18: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

19: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

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20: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

20: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

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21: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*

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23: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
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Gapop 10.0 , Gapext 1.0
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

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14			18	17	17	17	17	17	17	16	16	Match Length DB ID
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US-10-244-64/-5/4	10 10 011 011 511	110-10-344-643-64	US-10-453-792-49	US-10-669-841-2181	US-10-669-841-1755	US-10-342-902-2378	US-10-342-902-1755	US-09-877-478-2378	US-09-877-478-1755	US-10-453-792-41		ID
sequence 5/4, App		1	Sequence 49, Appl	Sequence 2181, Ap	Sequence 1755, Ap	Sequence 2378, Ap	Sequence 1755, Ap	Sequence 2378, Ap	1755	Sequence 41, Appl		Description

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100.	100.	100.	100.	100.	100.	16 100.0	100.	100.		100.	100.	100.	100.	100.	100.	16 100.0	100.	100.	100.	100.	100.		100.	100.	100.	100.		100.	100.	100.	100.	100.	F00.
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-10-719-619-1	US-10-453-79;	US-10-453-79	US-10-453-79	US-10-453-792	US-10-453-79	US-10-453-792-3	US-10-453-79	US-10-104-	US-09-929-9	US-10-453	US-10-461-7	US-10-398			c	18 US-10-240-917-1	US-10-312-045-	US-10-394-	US-10-478-633A-7	US-10-478-633	US-10-394-	US-10-394-896	US-10-394-896-	US-10-394-896	US-10-394-896-	-SD	US-10-244-647-129		ផ្ល		US-10-244-647-	US-10-244-	- 1 TO - 1 TO - 1 TO - 0 TO -
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US-09-888-164-29

IS-09-888-164-29

IS-09-888-164-29

IS-O9-888-164-29

Query Match

IS-O9-888-164-29

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Sequence 1755, Application US/09877478
Publication No. US20030068301A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Draper, Kenneth
APPLICANT: Blatt, Larry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 41, Application US/10453792 Publication No. US20040029110A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-Oct-1998
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 2551-5
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                           16;
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                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                         AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 16 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/10/453,792 FILING DATE: 04-Jun-2003 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 1100 NORTH GLEBE ROAD CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
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                                                                                                                                                                                                                                                                                           Conservative
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ROSSAU, RUDI
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Pred. No. 1.6e+02;
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SEQ ID NO 1755
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Best Local Similarity
                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
PRIOR APPLICATION NUMBER: US 09/696,347
PRIOR FILING DATE: 2000-10-24
PRIOR FILING DATE: 2000-10-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ribozyme Pharmaceuticals, Inc. APPLICANT: Draper, Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 1992-05-14
PRIOR PELICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
PRIOR PILING DATE: US 09/696,347
PRIOR FILING DATE: 2000-10-24
PRIOR FILING DATE: 2000-10-24
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SOFTWARE:
                       NUMBER OF SEQ ID NOS: 6586
                                                 PRIOR APPLICATION NUMBER: US 09/436,430 PRIOR FILING DATE: 1999-11-08
                                                                                                PRIOR FILING DATE: 1995-05-04
PRIOR APPLICATION NUMBER: US 08/434,504
PRIOR FILING DATE: 1995-05-04
                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR FILING DATE: 1994-02-07
PRIOR APPLICATION NUMBER: US 08/433,993
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: McSwiggen, Jim
APPLICANT: McTrissey, Dave
TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication
FILE REFERENCE: MBHB00-845-H (400/029)
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                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 07/882,712 PRIOR FILING DATE: 1992-05-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: RNA
ORGANISM: Hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/193,627
FILING DATE: 1994-02-07
APPLICATION NUMBER: US 08/433,993
FILING DATE: 1995-05-04
APPLICATION NUMBER: US 08/434,504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1995-05-04
APPLICATION NUMBER: US 09/436,430
FILING DATE: 1999-11-08
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Morrissey, Dave
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-H (400/029)
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Pred. No. 1.6e+02;
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                                                                                                                                                                                                                                                                               RESULT 6
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SEQ ID NO 1755
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Best Local Similarity
                                                                                                                                                                                                  GENERAL INFORMATION
                                                                                                                                                                                                                Sequence 2378, Application US/10342902 Publication No. US20040054156A1
                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                APPLICANT: Draper, Kenneth
APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: Morrissey, Dave
TITLE OF INVENTION: Method and Reagent for
FILE REFERENCE: 400/075 (MBHB00-845-I)
CURRENT APPLICATION NUMBER: US/10/342,902
CURRENT FILING DATE: 2003-01-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication FILE REFERENCE: 400/075 (MBHB00-845-I) CURRENT APPLICATION NUMBER: US/10/342,902 CURRENT FILING DATE: 2003-01-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
                                                                                                                                                                           APPLICANT: Sirna Therapeutics, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 09/877,478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Sirna Therapeutics, Inc. APPLICANT: Draper, Kenneth
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-08-09
APPLICATION NUMBER: US 09/696,347
FILING DATE: 2000-10-24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/882,712
FILING DATE: 1992-05-14
APPLICATION NUMBER: US 09/436,430
FILING DATE: 1999-11-08
  APPLICATION NUMBER: US
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Morrissey, Dave
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. US20040054156A1
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09/877,478
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Pred. No.
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                                                                           Inhibiting Hepatitis B Virus Replication
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PRIOR FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: US 09/611,931
PRIOR FILING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 09/504,321
PRIOR FILING DATE: 2000-02-15

FILING DATE: 2002-03-11
APPLICATION NUMBER: US 09/817,879
FILING DATE: 2001-03-26

APPLICATION NUMBER: US 60/363,124

APPLICATION NUMBER: US 09/740,332

Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 16207

See File Wrapper or PALM

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US-10-342-902-2378
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                                   PRIOR APPLICATION NUMBER: PCT/USO2/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 60/335,059
PRIOR FILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: US 60/337,055
PRIOR APPLICATION NUMBER: US 60/337,055
PRIOR FILING DATE: 2001-12-05
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SEQ ID NO 2378
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Best Local Similarity
                                                                                                                                                                                                            APPLICANT: Elisabeth, Roberts
TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPATITIE OF INVENTION: VIRUS REPLICATION
PILE REFERENCE: 400/042US (MBHB02-249-E)
CURRENT APPLICATION NUMBER: US/10/669,841
CURRENT FILING DATE: 2003-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILING DATE: 1999-11-08
NUMBER OF SEQ ID NOS: 6592
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APPLICATION NUMBER: US 60/358,580 FILING DATE: 2002-02-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 09/696,347 FILING DATE: 2000-10-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 09/636,385 FILING DATE: 2000-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US | FILING DATE: 2000-03-20
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James, McSwiggen
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Kenneth, Draper
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Pred. No. 1.6e+02;
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RESULT 9
US-10-453-792-49
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; ORGANISM: Hepatitis B Virus
US-10-669-841-2181
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Best Local
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Best Local Similarity
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APPLICANT: Kenneth, Draper
APPLICANT: Blisabeth, Roberts
TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
TITLE OF INVENTION: VIRUS REPLICATION
FILE REFERENCE: 400/042US (MHBBC-249-2)
CURRENT APPLICATION NUMBER: US/10/669,841
CURRENT FILING DATE: 2003-09-23
PRIOR APPLICATION NUMBER: PCT/US02/09187
PRIOR PILING DATE: 2002-03-26
PRIOR PILING DATE: 2002-03-26
PRIOR PILING DATE: 2001-06-08
PRIOR PILING DATE: 2001-06-08
PRIOR PILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: US 60/337,055
PRIOR APPLICATION NUMBER: US 60/337,055
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PRIOR APPLICATION NUMBER: US 09/611,931
PRIOR FILING DATE: 2000-07-07
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REILING DATE: 2001-03-76
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APPLICATION NUMBER: US 60/358,580
FILING DATE: 2002-02-20
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James, McSwiggen
David, Morrissey
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                                                                                                                                               Conservative
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100.0%; Pred. No. 1
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Publication No. US20030206887A1
GENERAL INFORMATION:
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Publication No. US20040029110A1
GENERAL INFORMATION:
APPLICANT: STUYVER, LIEVEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
APPLICANT: McSwiggen, Jawes
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
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APPLICATION NUMBER: US/09/155,885A
APPLICATION NUMBER: PCT/EP97/02002
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: SADOFF, B.J.
REGERENCE/DOCKET NUMBER: 2551-5
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0,

CURRENT APPLICATION DATA:
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ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANTI-SENSE: NO
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TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING
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FILING DATE: 04-Jun-2003
CLASSIFICATION: CURknown>
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TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 16; DB 17; ilarity 100.0%; Pred. No. 1.6e+02; Conservative 0; Mismatches 0;
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RESULT 12
US-10-244-647-576/c
; Sequence 576, Application US/10244647
; Publication No. US20030206887A1
; GENERAL INFORMATION:
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Best Local Similarity
Matches 16; Conser
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SEQ ID NO 574
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NUMBER OF SEQ ID NOS: 1524
SOFTWARE: Patentin version 3.0
SEQ ID NO 54
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Publication No.
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OTHER INFORMATION: Description of Artificial Sequence:
-10-244-647-574
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR TILING DATE: 2002-03-26
PRIOR PPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
NUMBER OF SEQ ID NOS: 1524
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PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR PILING DATE: 2002-07-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis TITLE OF INVENTION: Short Interfering Nucleic Acid (sina) FILE REFERENCE: 400/060 (MBHB02-1000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
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PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
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ORGANISM: Artificial Sequence
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US-10-244-647-577/c
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PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: ECT US02/09187
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
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Publication No. US20030206887A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn version 3.0 SEQ ID NO 577
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Best Local Similarity
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APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus
TITLE OF INVENTION: Short Interfering Mucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR APPLICATION NUMBER: DCT US02/09187
PRIOR APPLICATION NUMBER: US 60/393,924
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APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
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                                                                                                                                                                                                                                     TYPE: RNA
ORGANISM: Artificial Sequence
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Pred. No. 1.6e+02;
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US-10-244-647-700
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US-10-244-647-700
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NUMBER OF SEQ ID NOS: 1524
SOFTWARE: PatentIn version 3.0
SEQ ID NO 700
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Best Local Similarity
Matches 16; Conserv
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PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
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CURRENT FILING DATE: 2003-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
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APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
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ORGANISM: Artificial Sequence
ORGANISM: Artificial Sequence
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; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: sina antisense region
US-10-244-647-1220
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Query Match 100.0%; Score 16; DB 17; Length 19;
Best Local Similarity 100.0%; Pred. No. 1.6e+02;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps
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Search completed: March 29, 2005, 08:34:46
Job time : 325 secs

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                             AK078669
BB198017
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CG754259
AK009491
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AV359761
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CE514588 tigr-ges-	BG982671 IL5-CN006		CE812092 tigr-ges-	CF477353 RTWW3_7_B	BZ180217 CH230-485	AA205003 zq72e12.r	CA902085 PCS04956	CN125873 RHOH1_13_	AA147417 zo39e07.r	BQ198462 NXLV131_E	AA053186 zl72a04.r	BI536031 390188 MA	CE047936 tigr-gas-		CB691996 AMGNNUC:S	CV001930 csa02-2ms	BF935524 IL2-NT020	AW921312 EST352616	AI812549 12G1 Pine	BB251202 BB251202

ALIGNMENTS

LOCUS DEFINITION ACCESSION VERSION KEYWORDS RESULT 1 BF327943 COMMENT REFERENCE SOURCE FEATURES JOURNAL MEDLINE PUBMED ORGANISM TITLE AUTHORS source Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?t1=QV0&t2=QV0-BN0148070700-293-a12&t3=2000-07-07&t4=1) O'Hare,M.J., Soares,F., Brentani,R.R., Simpson, A.J. Seq primer: puc 18 forward Tel: +55-11-2704922 Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, sequence tags Shotgun sequencing of the human transcriptome with ORF expressed Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo Homo sapiens BF327943.1 QV0-BN0148-070700-293-a12 BF327943 Fax: +55-11-2707001 Homo sapiens (human) quality sequence start: 41 quality sequence stop: 382.
Location/Qualifiers Natl. Acad. Sci. U.S.A. /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db xref="reaxon:9606"
/dev_stage="Adult"
/clone_lib="BN0148"
/note="Organ: breast normal; Vector: pucl8; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products GI:11298691 384 bp mRNA linear BN0148 Homo sapiens cDNA, 97 (7), 3491-3496 (2000) mRNA sequence. Sao Paulo-SP,

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DEFINITION
ACCESSION
VERSION
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                                                                                                                                                                                                                                                                                                                                                                                                                            Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=CM2&t2=CM2-GN0295-
020101-655-a07&t3=2001-01-02&t4=1)
Seq_primer: puc 18 forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and Simpson,A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BI049449
CM2-GN0295-020101-655-a07
BI049449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: +55-11-2704922
Fax: +55-11-2707001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Simpson A.J.G.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                         Similarity
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100.0%; ilarity 100.0%; Conservative 0;
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                                                                                                   /note="Torgan: placenta normal; Vector: puc18; Site 1: Smal; Site 2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
                                                                                                                                                                                                                                                  clone_lib="GN0295"
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    0,
                       Score 16;
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                                            DB 4;
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AA103554/c
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         Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 464)

Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theising, B., Wylie, T., Lemon, G., Soares, B., Wilson, R. and Waterston, R.
                                                                                                                                                                                                       464 bp mF modAhl0.rl Life Tech mouse embryo 13 cDNA clone IMAGE:554563 5', mRNA sequ AA103554.1 GI:1649714
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Canis familiaris

Canis familiaris

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

1 (bases 1 to 441)

Kirkness E. F., Bafra, V., Halpern, A.L., Levy, S., Remington, K.,

Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and

Venter, J.C.
                                                                                                                                                                                                                                                                                                                                                                                                              1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics,
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 genomic survey sequence.
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CE327035.1 GI:36139166
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tigr-gss-dog-17000333941473
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                                                                                                                                                                           Mus musculus (house mouse)
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WashU-HHMI Mouse
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/note="Site 1: BstXI; Libraries were
peripheral blood"
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/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
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Pred. No. 1.8
0; Mismatches
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1.8e+03;
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Parkway, Box 8501, St. Lc
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AAAGCCACCCAAGGCA 16
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This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?t1=kt2=CM0-HT0180-041
                                                                                                                                                 Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                    Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.P., Goldman, G.H., Carvalno, A.F., Matsukuma, A., Bala, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, P., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 496)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
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496 bp mRNA linear
CMO-HT0180-041099-065-c06 HT0180 Homo sapiens cDNA,
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                                                                                                                                                                                                                                                                                                                                                  Simpson, A.J.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                      Fax: +55-11-2707001
                                                                                                        Tel: +55-11-2704922
                                                                                                                                                                                                                   Contact: Simpson A.J.G.
                                                                                                                                                                                                                                                                                  sequence tags
Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                             Shotgun sequencing of the human transcriptome with ORF expressed
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Oligo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clome lib="Life Tech mouse embryo 13 5dpc 10666014" 
/note="Organ: whole embryo; Vector: pCMV-5pORT2; Site 1: SalI; Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT. 13.5dpc embryos. pCMV-SPORT2 vector."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="embryo"
/dev_stage="13.5dpc embryos"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /strain="C57BL/6J"
/db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone="IMAGE:554563"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:8607481
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Pred. No.
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CF755881
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: mmpratt@uga.edu
Library constructed at Texas Tech University by Deshui Zhang and
Jiahnang Jia in the laboratory of Dr. Henry Nguyen. Sequencing was
done in the Laboratory for Genomics and Bioinformatics, University
of Georgia. Sequence ends have been trimmed to exclude vector and
regions below Phred quality 16. Three-prime sequences are presented
as their reverse complement and have been trimmed to exclude polyA.
Seq primer: JENREY (CAGGAACAGCTATGACC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Laboratory for Genomics and Bioinformatics The University of Georgia, Department of Plant Biology Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, Tel: 706 542 1860 Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CF755881 S87 bp mkNA Linear B0 DSAF1 2 A12.b1 A011 Drought-stressed after flowering S bicolor CDNA clone DSAF1 2 A12 A011 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2003)
Contact: Cordonnier-Pratt MM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sorghum bicolor (sorghum)
Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.

    (bases 1 to 587)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cordonnier-Pratt, M.-M., Zhang, D., McCartor, K., Nguyen, H.T. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CF755881.1 GI:37704961
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/dev_stage="Adult"
/clone_lib="HT0180"
/clone_lib="HT0180"
/note="Organ: head_neck; Vector: pucl8; Site_1: SmaI;
/note="Organ: head_neck; Vector: head_neck; Vector: head_neck; Vector: head_neck; Vector: head_neck; Vector: head_neck; Vector: h
                                                                                                                           /db xref="taxon:4558"
/clone="DSR1_A12_A011"
/dev stage="POSE-flowering"
/lab_host="ElectroMax_DH10B_(BRL)"
/clone lib="Drought-stressed after flowering"
/note="Organ: Leaf; Vector: pBlueScriptSK-; Site
/note="Corgan: The library was prepared from pol
                                                                                                                                                                                                                                                                                         /mol_type="mRNA
/cultivar="B35"
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/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                                                          organism="Sorghum bicolor"
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Pred. No. 1.9e+03;
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BQ385327.1 GI:21073014
EST.
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NISC_mn11f10.y1 NICHD_XGC_Ov1 Xenopus laevis cDNA clone
IMAGE:5073186 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              found through the I.M.A.G.E. Consortium/LLNL at: info@image.llnl.gov Plate: LLAMil196 row: L column: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Arrayed by: The I.M.A.G.E. Consortium/LLNL DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC) Clone distribution: NCI-CGAP clone distribution information can
CA192813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seq primer: M13RP1 reverse primer (ABI).
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov cDNA Library Preparation:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2002)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH-XCG http://image.llnl.gov/image/html/xenopuslib_info.shtml.
National Institute of Child Health and Human Development, Natio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cancer Insitute, Xenopus Gene Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xenopodinae; Xenopus; Xenopus.
1 (bases 1 to 623)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xenopus laevis (African clawed frog)
                                                                                                                                                                                             Similarity
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                                                                                                                                     AAAGCCACCCAAGGCA 16
                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                  /lab_host="DH10B (phage-resistant)"
/clone_lib="NICHD_XGC_Ov1"
/note="Organ: OvaTy; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 2.0 kb. Constructed by Life
Technologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from leaves harvested from post-flowering, drought-stressed Sorghum bicolor, cv. B35. Double-strande cDNA was cloned unidirectionally using the UniZap system from Stratagene. After amplification, the library was subtracted by re-association hybridization. Inserts can be excised with XhoI and EcoRI."
                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Xenopus laevis"
/mol_type="mRNA"
/db_xref="taxon:8355"
/clone="IMAGE:5073186"
                                                                                                                                                                                                                                                                                                                                                                                           sex="female"
                                                                                                                                                                                           100.0%;
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Pred. No. 1.9e+03;
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Pred. No.
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  EST 24-SEP-2003
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (Dases 1 to 659)
Arakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K.,
                                                                                                                                                                                                                                                  BB545848 RIKEN full-length enriched, 0 day neonat muscullus cDNA clone E130306004 3', mRNA sequence.
BB545848
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Clone distribution: clone distribution
through the Brazilian Clone Collection
http://www.bcccenter.fcav.unesp.br
Plate: 042 row: G column: 03
Seq primer: T7 Promoter Primer.
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Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP,
Tel: 55 19 3788 1137
Fax: 55 19 3788 1089
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The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Torsion: Stalk Bark from adult plants; Vector: pSport1; Site_1: SalI; Site_2: NotI; An unidirectional cDNA library generated from [Stalk Bark from adult plants]. CDNA was prepared from polyA+ mRVMA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose C1-2B 40cm-columns and fragments sizing between 0.8 and 1.5 Kb were directionally cloned into the vector. Details of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
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/db_xref="taxon:4547"
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Pred. No. 1.9e+03;
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Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara, Y. and Hayashizaki, Y.

Sugahara, Y. and Hayashizaki, Y.

Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001)

Kondo, S., Shinagawa, A., Saito, T., Kiyosawa, H., Yamanaka, I., Alzawa, K., Fukuda, S., Hara, A., Itoh, M., Kawai, J., Shibata, K. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y. Takeda, Y., Tanaka, T., et al. 2001)
Unpublished (2001)
On Jul 31, 2000 this sequence version replaced gi:9617276.
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Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
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The Institute of Physical and Chemical Research (RIKEN)
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Contact: Yoshihide Hayashizaki
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Tel: 81-45-503-9222
/note="Site_1: SalI; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
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FEATURES

Query Match Best Local Similarity

Score 16; Pred. No.

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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
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The libraries that made SUCEST
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Plate: 013 row: G column: 09
Seq primer: T7 Promoter Primer.
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Clone distribution: clone distribution
through the Brazilian Clone Collection
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Caixa Postal 6010, 13083-970, Campinas SP, Brazil
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                 RIKEN full-length enriched, cDNA clone 7530401G06 3', m
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                                                                                                                                                                                                                                                                                                                                                                                       immature plants; Vector: pSport1; Stte_1: Sal1; Stte_2: Not1; An unidirectional CDNA library generated from [Apical meristem and tissues surrounding of immature plants]. CDNA was prepared from polyA+ mRNA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose
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/db_xref="taxon:4547"
/clone="SCEPAM2013G09"
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                                                                                                                                                                                                                                          Score 16; DB 6;
Pred. No. 1.9e+03;
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                                  adult male eyeball
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Arakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Mateuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Shono, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y. RIKEN Mouse ESTS (Arakawa, T., et al. 2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.

Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)

wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A.
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Genomic Sciences Center and Genome Science Laboratory in RIKEN.
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Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.

Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of sononredundant cDNA library, Genome Res. . 11 (2), 281-289 (2001)

Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,I.,

Alzawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         On Nov 13, 1999 this sequence version replaced gi:6406899. Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Please visit our web site (http://genome.gsc.riken.go.jp/) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mouse tissues
                        prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
contributed to prepare mouse tissues. 1st strand cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Mus musculus"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                       /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                   tissue_type="eyeball"
dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /strain="C57BL/6J"
/db_xref="taxon:10090"
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                                                                                                                                                                                            note="Site_1: SalI; Site_2: BamHI; cDNA library was
                                                                                                                                                                                                                                                                                                                                                                                                                                         sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone="7530401G06"
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CD778583/c
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Best Local S
Matches 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rhipicephalus appendiculatus
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari;
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari;
Parasitiformes; Ixodida; Ixodoidea; Ixodidae; Rhipicephalus.

1 (bases 1 to 770)

1 (bases 1 to 770)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (2003)
Other_ESTs: EST649945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Parasite Genomics
The Institute for Genomic Research
9712 Medical Center Drive, Rockvil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Bishop,R. An index of genes transcribed in the salivary glands of Rhipicephalus appendiculatus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST649944 RAA Rhipicephalus appendiculatus cDNA clone RAAA309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Vishvanath Nene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nene,V., Lee,Y., Skilton,R., Mwaura,S., Quackenbush,J., Gardner,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rhipicephalus appendiculatus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CD778583.1 GI:49534256
                                                                                                                                                                                                                                                                                                                                                                                                                                      Seq primer: mixed oligo dT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: nene@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 301-610-5968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=Torgan: Salivary glands; Vector: pCMVSport6.0.ccdb; Salivary glands were dissected on day four after initiation of feeding. Total RNA was prepared using acid guanidium thiocyanate-phenol-chloroform extraction. The cDNA library was custom prepared by Invitrogen Corporation. Briefly, first strand cDNA was primed using oligo(dT) containing a Notl site. Size fractionated double stranded cDNA was ligated to EcoRV-Notl cleaved vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primed with a primer [5' GAGAGAGAGAGAGCTCTTTTTTTTTTTTTTTTTTTTTVN 3'], cDNA was
                 uninfected ticks."
                                       electroporated into E.coli. Library RAA was made from
                                                                                                                                                                                                                                                                                       /organism="Rhipicephalus appendiculatus"
/mol_type="mRMQN"
/strain="Muguga"
/db_xref="reaxon:34631"
/clone="RAAA309"
                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                               clone_lib="RAA"
                                                                                                                                                                                                                                                /dev_stage="Adult"
/lab_host="E. coli strain DH10B-TonA"
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Query Match

100.0%;

Score 16;

DB

6

Length 770

AND ESTABLE

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CA474404/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1. (bases 1 to 895)
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602993448F1_NCI_CGAP_Mam5
   Danio
                                EST
                                                CA474404.1 GI:24930756
                                                             CA474404
                                                                           AGENCOURT 10667749 NCI
IMAGE:6795444 5', mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: égapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (1999)
Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                 Danio
                                                                                                             CA474404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plate: LLAM11368
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                                                                                                                                                                                                        AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              quality sequence start: 4 quality sequence stop: 741. Location/Qualifiers
                                                                                                                                                                                                                                                100.0%; ilarity 100.0%; Conservative
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   rerio
                                                                                                                                                                                                                                                                                                                           /clone lib="NCI_CGAP_Mam5"
/note="Organ: mammary; Vector: pCWV-SPORT6; Site 1: Sall Site 2: NotI, Cloned unidirectionally. Primer: Öligo dT Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Robin Humphreys, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="tumor, gross tissue"
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/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone="IMAGE:5149306"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:14799568
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Pred. No.
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; Mismatches 0;
                                                                                            CGAP ZKid1
                                                                                                         975 bp
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Danio rerio cDNA clone
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IMAGE:5149306 5',
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AUTHORS
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ORGANISM
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VERSION
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W34362/c
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Best Local
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                                                                                                                                                                                                                                                                                                                              Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 987)
1 (bases 1 to 1987)
2 (bases 1 to 1987)
3 (bases 1 to 1987)
4 (bases 1 to 1987)
5 (bases 1 to 1987)
6 (bases 1 to 1987)
7 (bases 1 to 1987)
7
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ma99b12.rl Soares mouse
IMAGE:318815 5' similar
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1 (bases 1 to 975)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
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                                                                                                                                                                     WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Leonard I. Zon,
Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                         Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plate: LLAM14305 row: i column:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA Library Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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ilarity 100.0%;
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RcoRV; Site_2: NotI; Cloned unidirectionally. Primer:
BCORV; Site_2: NotI; Cloned unidirectionally. Primer:
Oligo_dT. Average insert size_1.8 kb. Constructed by J.
Wang (Research Genetics, Invitrogen Corp) from tissue
donated by L. Zon (Harvard University). Note: this is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:1316273
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Pred. No.
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MGI:209431

Seq primer: ETPrimer
High quality sequence stop: 363.
Location/Qualifiers

1. 997

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 50.
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
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                                                                                                                                                                                      Score
   Query
Match
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1: gb_ba:*
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3: gb_in:*
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Gapop 10.0 , Gapext 1.0
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16
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gb_ph: *
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I65372
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A66874 Sequence 41
I55199 Sequence 48
AR271346 Sequence
AR488376 Sequence 49
I65373 Sequence 22
AR488384 Sequence 21
I65372 Sequence 25
A18805 oligonucleo
A18806 oligonucleo
A18806 oligonucleo
A18806 primer
E08679 Sequence 25
B16519 Sequence 45
I55196 Sequence 45
I55196 Sequence 45
I55198 Sequence 45
I752344 Sequence 5
AR271343 Sequence
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45	44	43	42		4	c 39					34	33	32	31	c 30	c 29	28	27						c 21	
13	13	13	13	13.4	13.4	13.4	13.4	14	14	14	14	14	14.4	14.4	15	15	15	15	16	16	16	16	16	16	16
	81.2	81.2		83.8			83.8	87.5	٠	87.5	•	•	٠	90.0	•	93.8	93.8	•	•	•	•	100.0	100.0	100.0	100.0
21	20	16	16	41	41	24	20	35	35	30	20	18	20	16	3 3	30	20	16	50	44	44	23	23	23	23
σ	თ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	Φ	σ	σ	σ	σ	σ	0	σ	6	σ	σ	σ	0
I55200	AR000183	AR271348	I55201	AX517487	AX516081	AX291863	AX296496	A01721	A00984	A07794	AR027815	AR086991	AX487887	AR087003	AX147027	BD141709	AR086982	AR087000	AR000194	165371	165370	AX250613	E09725	AR000182	A18804
155200 Sequence 49	AR000183 Sequence	AR271348 Sequence	I55201 Sequence 50	AX517487 Sequence			AX296496 Sequence	A01721 Expression	A00984 BamHI site	A07794 Nucleotide	AR027815 Sequence	AR086991 Sequence	AX487887 Sequence		AX147027 Sequence	BD141709 Method fo	AR086982 Sequence	AR087000 Sequence	AR000194 Sequence	I65371 Sequence 20	165370 Sequence 19	AX250613 Sequence	E09725 Primer OAL4	AR000182 Sequence	A18804 oligonucleo

ALIGNMENTS

RESULT 1

RESULT 2 155199 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE	Query Match Best Local; Matches 1: Qy 1 Db 1	SOURCE SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES SOURCE	A66874 LOCUS DEFINITION ACCESSION VERSION VERSION
I55199 16 bp DNA linear Sequence 48 from patent US 5646262. I55199 I55199.1 GI:2476402 Unknown. Unclassified. I (bases 1 to 16)	Query Match 100.0%; Score 16; DB 6; Length 16; Best Local Similarity 100.0%; Pred. No. 1.3e+03; Matches 16; Conservative 0; Mismatches 0; Indels 1 AAAGCCACCCAAGGCA 16	unidentified unidentified unclassified. 1 (bases 1 to 16) 1 (bases 1 to 16) Stuyver,L., Rossau,R. and Maertens,G. METHOD FOR TYPING AND DETECTING HBV PATENT: WO 9740193-A 41 30-OCT-1997; INNOGENETICS NV (BB) Location/Qualifiers 116 /organism="unidentified" /mol_type="unassigned DNA" /db_xref="taxon:32644"	A66874 16 bp DNA linear Sequence 41 from Patent W09740193. A66874 GI:4538245
PAT 07-OCT-1997	6; 0; Gaps 0;		PAT 29-MAR-1999

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1 (bases 1 to 16)
Korba, B.E. and Gerin, J.L.
Antisense ogligonuclectides against Hepatitis
Patent: US 6503533-A 48 07-JAN-2003;
Location/Qualifiers
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Stuyver,L., Rossau,R. and Maertens,G.
Method for typing and detecting HBV
Patent: US 6709812-A 41 23-MAR-2004;
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Sequence 41 from patent US
AR488376
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Location/Qualifiers
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1 (bases 1 to 18)
Stuyver,L., Rossau,R. and Maertens,G.
METHOD FOR TYPING AND DETECTING HBV
Patent: WO 9740193-A 49 30-OCT-1997;
INNOGENETICS NV (BE)
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Birkenmeyer,L. and Mushahwar,
Method for detecting nucleic
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Stuyyer.L., Rossau,R. and Maertens,G.
Method for typing and detecting HBV
Patent: US 6709812-A 49 23-MAR-2004,
Location/Qualifiers
1. .18
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Birkenmeyer, L. and Mushahwar, I.K.
Method for detecting nucleic acid sequences using competitive amplification
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Birkenmeyer,L. and Mushahwar,I.K.
Method for detecting nucleic acid sequences
                                                                                                                                                                                                     Sequence 25 from patent US 165376
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Location/Qualifiers
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AR086981 20 bp
Sequence 18 from patent US 5985662.
AR086981 GI:10013747
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1 (bases 1 to 20)
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A18806
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Pred. No. 1.3e+03;
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                                                                                                                                                                                                            POLYPEPTIDE
POLYPEPTIDE
PATENT: JP 1995033797-A 5 03-FEB-1995;

MITSUBISHI CHEM CORP

ON
None
OC
Artificial sequences.
PN JP 1995033797-A/5
PP 1995033797-A/5
PP 21-JUL-1993 JP 1993180314
PI UCHIDA TOSHIKAZU, SHIKATA TOSHIO
PC COTKI4/02,C12N15/09,C12P21/02,G01N33
CC strandedness: Single;
CC strandedness: Single;
CC topology: Linear;
CC topology: Linear;
CC hypothetical: No;
CC anti-sense: No;
CC anti-sense: No;
FT Source
PH Key
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Inote='Primer p205'.
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JP 1995033797-A/5.
unidentified
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Anderson, K.P. and Cowsert, L.M.
Antisense inhibition of hepatitis B virus
Patent: US 5985662-A 18 16-NOV-1999;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unknown.
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16; Conserv
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Uchida, T. and Shikata, T.
HEPATITIS B VIRUS-DERIVED POLYPEPTIDE AND GENE CODING THE SAME
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20 bp DNA linear PAT 29-SEP-1997
PCR primer for gaining polypeptide from X protein of Hepatitis B
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                           AAAGCCACCCAAGGCA 16
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JP 1995033797-A/5
JP 1995033797-A/5
03-FEB-1995
21-JUL-1993 JP 1993180314
UCHIDA TOSHIKAZU, SHIKATA TOSHIO
CO7K14/02,C12N15/09,C12P21/02,G01N33/53,G01N33/569,G01N33/576;
strandedness: Single;
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llarity 100.0%;
Conservative 0;
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Location/Qualifiers
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                                                           Score 16; DB 6;
Pred. No. 1.3e+03;
Mismatches 0;
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completed: March me : 1449 secs
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Sequence
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155196.1
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Anderson,K.P. and Cowsert,L.M.
Antisense inhibition of hepatitis B
Patent: US 5985662-A 7 16-NOV-1999;
Location/Qualifiers
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Sequence 7 from patent US
AR086970
AR086970.1 GI:10013736
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Korba, B.E. and Gerin, J.L.
Antisense oligonucleotides against hepatitis
Patent: US 5646262-A 45 08-JUL-1997;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unknown.
Unclassified.
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ilarity 100.0%;
Conservative (
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/mol_type="unassigned
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100.0%; Pred. No. 1.3e+03;
live 0; Mismatches 0;
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Post-processing: Minimum Match 0%
Maximum Match 100%
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GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
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ADM60244
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AAV14133
AAT71785
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ACD55710
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AAV14125
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ADM00807
ADM00284
ADM00804
ADL99637
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                                                                                     Aat71786 Hepatitis
Aav14133 Probe HBP
Aat71785 Hepatitis
Aat71789 Hepatitis
      Adm00160 Hepatitis
Adm00806 Hepatitis
Adm00807 Hepatitis
Adm00804 Hepatitis
Adm00804 Hepatitis
Ad199637 Hepatitis
Adm00161 Hepatitis
Adm00158 Hepatitis
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Adm59621 Hepatitis
Adm60244 Hepatitis
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Aav14125 Probe HBP
Adb68575 NG3 A-L-P
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ADM00161

HBV

The present sequence, which inhibits the replication of hepatitis B virus (HBV) in a host cell, is a single stranded annisense oligonucleotide that binds the epsilon encapsidation sequence of a mRNA intermediate derived from the HBV genome. The lst nucleotide of the oligonucleotide corresponds to nucleotide 1884 of the HBV ayw subtype C gene, using the numbering scheme from the sequence published by Gallbert et al., Nature

Single stranded oligo:nucleotide(s) for inhibiting replication hepatitis B virus - are anti-sense to portions of the epsilon encapsidation sequence and modulate HBV function.

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WPI; 1996-116796/12.

Korba

BE,

Gerin JL;

28-JUL-1994;

94US-00281106.

(GEOU) UNIV GEORGETOWN.

Claim 15; Page 44; 56pp; English.

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93.8	93.8	93.8	93.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	•	100.0	100.0	100.0
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ADL99647	ADM60243	ACD55709	AAT70966	AAQ81436	ABK14696	ABK14698	AAT71783	AAT71784	AAS14628	AAV29303	ADM00880	AAD19005	AAQ81424	AAT03266	AAQ13770	ADM00924	ADA13842	AAT70936	AAT18253	AAT18255	AAQ92909	AAT70947	AAQ85970	AAQ13772
Adl99647 Hepatitis	Adm60243 Hepatitis	~	Aat70966 HBV pre-g	Aag81436 HBV targe	Abk14696 RNA targe	Abk14698 HBV encap	Aat71783 Hepatitis	Aat71784 Hepatitis	Aas14628 NASBA mol	Aav29303 Hepatitis	Adm00880 Hepatitis	Aad19005 Hepatitis		Aat03266 Hepatitis	Aag13770 HBV prime	Adm00924 Hepatitis	Ada13842 Short int	Aat70936 HBV core	Aat18253 HBV epsil	Aat18255 HBV epsil	Aag92909 Antiviral		Aaq85970 Hepatitis	Aaq13772 HBV prime

Inhibition; replication; hepatitis B virus; HBV; antisense; mRNA; epsilon; encapsidation; sequence; intermediate; subtype ayw; C gene; treatment; chronic infection; modulation; translation; transcription; release; host cell; ss. Synthetic. AAT18256; AAT18256 standard; DNA; 16 28-JUL-1995; 08-FEB-1996. WO9603152-A1. HBV epsilon encapsidation mRNA intermediate antisense oligo L2c. 17-SEP-1996 (first entry) 95WO-US009143. ВÞ

ALIGNMENTS

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RESULT 2
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           This sequence represents a probe for the preCore region of hepatitis b virus (HBV). This sequence can be used in the method of the invention for detection and/or genetic analysis of hepatitis B virus (HBV) in a sample the method comprises: (a) optionally releasing, isolating or concentrating polynucleic acids (I) in the sample, and amplifying the relevant part of a suitable HBV gene in the sample with at least 1 suitable primer pair; (b) hybridising (I) with a combination of at least 2 nucleotide probes, which are applied to known locations on a solid support and hybridise specifically to mutant target sequences chosen from the HBV gene region, HBV preCore region, HBASq region and/or HBV genotype specific target sequences, or their complements or U for T homologues; (c) detecting the hybrids formed in step (b), and inferring the HBV genotype and/or mutant argent in the cample from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281: 646 (1979). A compsn. comprising the oligonucleotide may be used to treat chronic HBV infection by modulating a HBV related function, e.g. translation, transcription, encapsidation, replication and release from a host cell. The effect of the oligonucleotide on the levels of HBV DNA in the extracellular medium (VIR. DNA), intracellular viral replicative intermediates (HBV RI), intracellular viral RNA (HBV RNA), HBV surface antigen protein (HBSAg), HBV eantigen protein (HBSAg), and HBV core antigen protein (HBCAg), given as the EC(90) (microM, 9 days of treatment) or ND (not determined), are VIR. DNA (1.6), HBV RI (5.1), HBV RNA (>20), HBSAg (>20), HBSAg (>20) and HBCAG (18.5)
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19-MAY-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detection
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis
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genotype and/or mutants
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n detection; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                    and/or genetic analysis of hepatitis B virus - preCore mutations, vaccine escape mutations and selected by treatment with drugs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rossau R,
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                                                                                                                                                                                                                                                                                                                                                                   English.
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Pred. No.
present in the sample from the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .5e+02;
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The invention relates to a novel homogeneous conjugate comprising hepatic ligand, bifunctional linker and biologically stable oligor binds to a sequence in a hepatic virus or pathogen and is released

oligomer that

Claim 7; Page 83; 107pp; English

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   differential hybridisation signal(s). The composition can be used to diagnose and/or monitor HBV mutants and/or genotypes in a sample, specifically genotype, precore mutations, vaccine escape mutations and gene mutations selected by treatment with drugs, e.g. lamivudune and penciclovir. (Updated on 27-AUG-2003 to correct OS field.)
                                                                                                                       Tg'o
                                                                  New homogeneous prodrug conjugate containing hepatic ligand for delivery of pathogen-specific oligomer useful for treating liver infections or
                                                                                                                                                                                             21-JUN-2002; 2002WO-US019908
                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                          homogeneous A-L-P conjugate; hepatic; chronic viral hepatitis; cirrhosis; malaria; viral infection; protozoan; cancer; hepatocellular carcinoma; HCC; ss; NG3; HBV; e-site; pregenome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NG3 A-L-P
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                                                                                                  WPI; 2003-697456/66
                                                                                                                                           (CELL-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conjugate DNA component used to target HBV e-site.
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ilarity 100.0%;
Conservative (
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/note= "OTHER = Optionally linked to
and various chemical groups as shown
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/mod_ba
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RESULT 4
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ACD55710;
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AC ACD55710;
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DE HBV amberzyme substr
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Nucleic acid molecul
KW RNA stability, RNA e,
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KW enzymatic nucleic ac
KW enzymatic nucleic ac
KW enzymatic stranscri,
KW degenerative; diseas
KW virucide; antiinflam
XX
IVERTAL 2002 81494-A1.
XX
VIRUCIDE; ADDAL
XX
VIRUCIDE; 2002WO-1
XX
XX
DE 17-OCT-2002; 2002WO-1
XX
26-MAR-2001; 2001US-1
PR 08-JUN-2001; 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme amberzyme; G-cleaver ribozyme; decoy molecule; aptamer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the conjugate by hydrolysis or reduction. The conjugate of the inventionary be useful during the treatment of liver diseases including chronic viral hepatitis, cirrhosis, malaria, viral or protozoan infection and cancer, such as hepatocellular carcinoma (HCC). The current sequence ithat of the NG3 A-L-P conjugate DNA component of the invention which was used to target the Hepatitis B virus (HBV) pregenome (e-site).
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-UNN-2001; 2001US-00877478

08-JUN-2001; 2001US-02968768

24-OCT-2001; 2001US-03350598
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                                                   Example 1; Page 207; 387pp; English
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DRAPER K.
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                                                                                                                                                                                                                                                                                                                                                                                                                          MCSWIGGEN J.
MORRISSEY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIBOZYME PHARM
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Roberts E;
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                                                                                                                             or condition associated
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Pred. No. 1.5e+02;
Mismatches 0;
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ated with hepatitis C virus
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was
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present invention relates to nucleic acid molecules which modulate

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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CC the synthesis, expression and/or stability of Hepatitis C virus (HCV) or CC Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense CC and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes, CC inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed CC are nucleic acid decoy molecules and G-cleaver ribozymes. Also disclosed CC transcriptase and/or HBV reverse transcriptase primer sequences, as well CC as oligonucleotides that specifically bind the Enhancer I region of HBV CC DNA. The nucleic acids may be used to modulate the expression of HBV CC genes and HBV viral replication. Also disclosed is a method for screening CC compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and CC disease states related to HBV and HCV infection, replication and gene CC expression such as cirrhosis, liver failure, and hepatocellular CC carcinoma. The present sequence represents a substrate for one of the HBV CC cribozyme, inozyme, G-cleaver, zinzyme, DNAzyme or amberzyme sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 16
                                                                                                                                                                                   08-JUN-2001;
08-JUN-2001;
24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                    RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme amberzyme; G-cleaver ribozyme; decoy molecule; aptymer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
                                                                                                              (RIBO-)
(BLAT/)
(MACE/)
                                                                                                                                                                                                                               26-MAR-2001;
                                                                                                                                                                                                                                                           26-MAR-2002;
                                                                                                                                                                                                                                                                                    17-OCT-2002.
                                                                                                                                                                                                                                                                                                                  WO200281494-A1
                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACD53930;
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                                         PAVCO P.
LEE P.
DRAPER K.
                                                                                   MCSWIGGEN
MORRISSEY
                                                                                                                             RIBOZYME PHARM
BLATT L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                            ROBERTS
                                                                                                              MACEJAK D.
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                                                                                                                                                                                                                                                                                                                                                                          antiinflammatory; substrate; ss.
Macejak D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in the
                                                                                                                                                                    ; 2001US-00817879.
; 2001US-00877478.
; 2001US-0296876P.
; 2001US-0335059P.
; 2001US-0337055P.
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llarity 100.0%;
Conservative (
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Mcswiggen J,
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Pred. No. 1.5e+02;
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RESULT 6
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KW cirrho
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PP 15-JAN
XX 14-MAN
PR 07-FEE
PR 08-NOV
PR 09-AUC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to nucleic acid molecules which modulate CC the synthesis, expression and/or stability of Hepatitis C virus (HCV) or CC Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense and enzymatic nucleic acids such as hammerhead ribozymes (DNAzymes, CC inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed CC are nucleic acid decoy molecules and aptamers that bind to HBV reverse CC transcriptase and/or HBV reverse transcriptase primer sequences, as well CC as oligonucleotides that specifically bind the Enhancer I region of HBV CC DNA. The nucleic acids may be used to modulate the expression of HBV CC genes and HBV viral replication. Also disclosed is a method for screening CC compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and CC disease states related to HBV and HCV infection, replication and gene CC expression such as cirrhosis, liver failure, and hepatocellular carcinoma. The present sequence represents a substrate for one of the HBV cribozyme, inozyme, G-cleaver, zinzyme, DNAzyme or amberzyme sequences
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Best Local S
Matches 16
                                                                                                                   20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus; HBV; ss; enzymatic nucleic acid; RNA cleavage; hepatitis B virus infection; hepatitis; hepatocellular carcinoma; cirrhosis; liver failure; lamivudine; interferon; genetic drift; virucide; hepatotropic; antiinflammatory; cytostatic.
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                                                                                                                                                                                                                                   14-MAY-1992;
07-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 175; 387pp; English.
                                                                                                                                                                                                       08-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                US2004054156-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hepatitis B virus
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                                                                                                                                                                                                                                                                                                                          15-JAN-2003; 2003US-00342902.
                                                                                                                                                                                                                                                                                                                                                                                       18-MAR-2004.
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   DRAPER K.
BLATT L.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hepatotropic;
                                                                                    92US-00882712.
94US-00193627.
99US-00193627.
2000US-00436430.
2000US-00531025.
2000US-00636345.
2000US-00866347.
2000US-008677478.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         virus (HBV) RNA target sequence #1755.
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Pred. No.
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RESULT 7
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Best Local S
Matches 16
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07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     specifically cleaves RNA derived from hepatitis B virus (HBV) and comprising one or more binding arms, without requiring the presence of a 2'-OH group within the molecule for activity. The nucleic acids are useful for treating hepatitis B virus infection, hepatitis, hepatocellular carcinoma, cirrhosis and liver failure, either alone or in combination with other therapies such as lamivudine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this patent is also available in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hepatitis
hepatitis
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  (DRAP/)
(BLAT/)
(MCSW/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 invention. Note: The sequence data for this patent is also avail electronic format from USPTO at seqdata.uspto.gov/sequence.html.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis B virus (HBV) RNA target sequence #2378.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JUN-2004
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(MORR/) MORRISSEY D.
                                                                                                                                            -2000;
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DRAPER K.
BLATT L.
MCSWIGGEN J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          virus; HBV; 88; enzymatic nucleic acid; RNA cleavage; virus infection; hepatitis; hepatocellular carcinoma; liver failure; lamivudine; interferon; genetic drift;
                                                                                                             92US-00882712.
9508-0013627.
99US-00436430.
2000US-00531025.
2000US-00531035.
2000US-00636385.
2000US-00696347.
2001US-00877478.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antiinflammatory; cytostatic
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Pred. No. 1.5e+02;
); Mismatches 0;
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and cirrhosis.
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Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             useful for treating hepatitis B virus infection, hepatitis, hepatitis, hepatitis B virus infection, hepatitis, hepatitis, hepatitis B virus infection, hepatitis, hepaticolar treation with other therapies such as lamivudine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this patent is also available in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel enzymatic nucleic acid molecule such as DNAzymes and inozymes specifically cleaving RNA derived from hepatitis B virus and comprising one or more binding arms, useful for treating hepatitis and cirrhosis.
                                                                                                                                                                                                                                                      misc_difference
                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                 Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                           29-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                       AAT71786;
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT71786 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to an enzymatic nucleic acid molecule that specifically cleaves RNA derived from hepatitis B virus (HBV) and comprising one or more binding arms, without requiring the presence 2'-OH group within the molecule for activity. The nucleic acids are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
WPI; 1997-052367/05
                       Birkenmeyer L,
                                                                            07-JUN-1995;
                                                                                                       03-JUN-1996;
                                                                                                                                  19-DEC-1996.
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                                                                                                                                                                                                            misc_difference
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                                                   ABBOTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Blatt L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 0 A; 3 C; 7 G; 0 T; 7 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 2378; 122pp; English.
                                                                                                                                                                                                                                                                                                                        chain
                                                                                                                                                                                                                                                                                                                                                 virus
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                                                                                                      96WO-US008429
                         Mushahwar IK;
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                                                                                                                                                                                                                                                                                                                                                 precore antigen wild-type target sequence primer.
                                                                                                                                                                                                                                                                                                                        reaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
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                                                                                                                                                                                                                             "Phosphorylated"
                                                                                                                                                                                    "Haptenated with fluoroscein"
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                        standard; amplification; ss
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1.5e+02;
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RESULT 9
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Best Local S
Matches 16
                                                                                                                           Detection genotype, mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild-type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and method. The compositions can be used for quantitatively detecting the DNA
This sequence represents a probe for the preCore region of hepatitis b virus (HBV). This sequence can be used in the method of the invention for detection and/or genetic analysis of hepatitis B virus (HBV) in a sample. The method comprises: (a) optionally releasing, isolating or concentrating polynucleic acids (I) in the sample, and amplifying the relevant part of a suitable HBV gene in the sample with at least 1
                                                                                                   Claim
                                                                                                                                                                                                              Stuyver L,
                                                                                                                                                                                                                                                                      19-APR-1996;
                                                                                                                                                                                                                                                                                                 21-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                          mutation detection; 88
                                                                                                                                                                                                                                                                                                                                                                                                                                         Probe; hepatitis b virus; HBV detection; RT pol preCore region; HBsAg region; genotype specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Probe HBPr49 for preCore region of HBV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-AUG-2003
19-MAY-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV14133 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Quantitative detection of target nucleic acid sequence, virus - can distinguish wild-type and mutant DNA types.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGCCACCCAAGGCA
                                                                                                                          and/or genetic analysis of hepatitis B virus - preCore mutations, vaccine escape mutations and selected by treatment with drugs.
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(first en
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                                                                                                                                                                                                                                                                       96EP-00870053
                                                                                                                                                                                                                                                                                                                                                                                                                                       HBsAg region; genotype
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40pp; English
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Pred. No. 1.5e+02;
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RESULT 10
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Matches 16
                          A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction, and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild-type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT71785 standard; DNA; 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Birkenmeyer L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 29; 40pp;
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Pred. No.
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RESULT 11
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Best Local
                                                                                                                                                                                                                       A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen mutant target sequence (AAT71784). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quantitative detection of target nucleic acid sequence, virus - can distinguish wild-type and mutant DNA types.
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                                                                                                                                                     Sequence 19
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     AAAGCCACCCAAGGCA 16
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ilarity 100.0%;
Conservative (
                                                                                                                                                        BP; 1
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                                                          Conservative
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                                                                                 100.0%;
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Pred. No. 3
                                                                              Score 16; DB 2;
Pred. No. 1.5e+02;
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                                                                                                                                                        8 T;
                                                            Mismatches
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RESULT 12

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XX US2003
XX US2003
XX US2003
XX O6-NOV
PR 11-MAY
PR 09-AUC
PR 09
                                                                                                  The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepsatitis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii) a method of generating a library of siNA constructs having predetermined complexity; (iii) a cell containing one or more siNA molecules (iv) a kit containing a siNA molecule which can be used to comparise in a cell, tissue or corganism, and (v) a method for synthesising a siNA molecule. The siNA comparises a sense and an antisense region, where the antisense region comprises sequence complementary to an RNA sequence encoding HBV and the sense region. Comprises sequence complementary to the antisense region. The siNA comprises the sense region and the second fragment comprises the sense region continues region and the second fragment comprises the sense region continues region and the second fragment comprises the sense region continues region and the second fragment comprises the sense region continues region and the second fragment comprises the sense region continues region and the second 
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07-FEB-1994; 94US-0013627.
08-NOV-1999; 99US-00436430.
20-MAR-2000; 2000US-00531025.
09-AUG-2000; 2000US-00636385.
24-OCT-2000; 2000US-00696347.
08-JUN-2001; 2001US-00897676.
24-OCT-2001; 2001US-0296876.
24-OCT-2001; 2001US-035059.
05-DEC-2001; 2002US-03370559.
11-MAR-2002; 2002US-03331249.
26-MAR-2002; 2002US-036782.
29-AUG-2002; 2002US-046784.
05-SEP-2002; 2002US-0406784.
05-SEP-2002; 2002US-0406784.
       antisense
connected
linker or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-901032/82.
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) MCSWIGGEN J !
) BEIGELMAN L.
   region comprise separate oligonucleotides, and are covalently via a linker molecule. The linker molecule is a polynucleotide a non-nucleotide linker. The sense region comprises a 3'-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
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RESULT 13
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Best Local S
Matches 16
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24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
06-JUN-2002;
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07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   terminal overhang and the antisense region comprises a 3'-terminal overhang. The 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region 3'-terminal overhang is complementary to RNA encoding HBV. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to inhibit activity of target genes in a pathway to determine the function of uncharacterised genes in gene function analysis. The siNA molecules may also be used in clinical, industrial, environmental, agricultural and/or research settings. The present sequence represents 1 of 1504 HBV siNA molecules of the invention.
                                                                                                                                                                                                                                                                       24-OCT-2000;
08-JUN-2001;
                                                                             Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B virus short interfering nucleic acid (siNA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM00806;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19 BP; 0 A;
                                                                                                                                                                                                                                                                                                                                                                     16-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Hepatitis B virus.
                                                                                                      BEIG/)
                                                       2003-901032/82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AAAGCCACCCAAGGCA 16
                                                                                                    MORRISSEY D.
MCSWIGGEN J A.
BEIGELMAN L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; RNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGCCACCCAAGGCA
                                                                                                                                                                                    2001US-0296876P.
2001US-0330559P.
2001US-03370559P.
2002US-0358580P.
2002US-0358580P.
2002US-0363124P.
2002US-036782P.
                                                                                                                                                                                                                                                                      2000US-00531025.
2000US-00636385.
2000US-00696347.
2001US-00877478.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                     2002US-00244647
                                                                                                                                                   2002US-0406784P.
2002US-0408378P.
2002US-0409293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry
                                                                             Mcswiggen
                                                                                                                                                                                                                                                                                                                      99US-00436430.
                                                                                                                                                                                                                                                                                                                                             92US-00882712
                                                                                                                                                                                                                                                                                                                                    94US-00193627.
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                                                                               JA,
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                                                                             Beigelman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 16; DB 11;
Pred. No. 1.5e+02;
); Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 U; 0 Other;
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New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          that down-regulates expression of a hepatitis B virus (HBV) gene by RNA (C) interference or that inhibits HBV replication. Also disclosed are the continue (HBV) gene by RNA (C) interference or that inhibits HBV replication. Also disclosed are the continue; (i) a method of modulating the expression of a HBV gene in a CC tissue explant; (ii) a method of generating a library of sINA constructs (C) modulate the expression of a HBV target gene in a cell containing one or more siNA (C) modulate the expression of a HBV target gene in a cell, tissue or companism; and (v) a method for synthesising a siNA molecule. The siNA containing an antisense region, where the antisense region, and comprises a sense complementary to an RNA sequence encoding HBV and the sense region (C) comprises sequence complementary to the antisense region. The siNA (C) molecule is assembled from 2 nucleic acid fragment comprises the sense region and the second fragment comprises the connected via a linker molecule. The linker solecule is a polymucleotide coverhang. The 3'-terminal overhange region comprises a 3'-terminal overhange application for treating human hepatitis B virus (C) inhibit activity of target genes in a pathway to determine the function of uncharacterised genes in gene function, e.g. to inhibit activity of target genes in a pathway to determine the function (C) and/or research settings. The present sequence represents 1 of 1504 HBV (C) sinA molecules of the invention.
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Best Local
                 09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
                                                                 14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19
                                                                                                                                                                                                                                                     Hepatitis B virus.
                                                                                                                                                                                                                                                                                  siNA; hepatitis B
                                                                                                                                                                                                                                                                                                   Virucide;
                                                                                                                                                   16-SEP-2002; 2002US-00244647
                                                                                                                                                                                    06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                   20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                    ADM00807 standard; RNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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92US-00882712.
94US-00193627.
99US-00436430.
2000US-00531025.
2000US-00636385.
2000US-00696347.
2000US-00877478.
2000US-0296876P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 7 A; 9 C; 3 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                 virus short interfering nucleic acid (siNA) #1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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0;

Gaps

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ADM00284 ID ADM

ADM00284 standard; RNA; 19

RESULT 15

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BXAX

ADM00284;

20-MAY-2004

(first entry)

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The invention relates to a short interfering nucleic acid (siNA) molecule chat down-regulates expression of a hepatitis B virus (HBV) gene by RNA contracted in the contraction. Also disclosed are the color of a laboration of a HBV gene in a tissue explant; (ii) a method of generating a library of siNA constructs containing a predetermined complexity; (iii) a cell containing one or more siNA condulating the expression of a HBV gene in a colles; (iv)a kit containing a siNA molecule which can be used to complementary in the companism; and (v) a method for synthesising a SiNA molecule. The siNA conganism; and (v) a method for synthesising a SiNA molecule. The siNA comprises sequence region, where the antisense region comprises sequence complementary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to the antisense region. The siNA comprises the sense region and the second fragments, where one fragment comprises the sense region and the second fragment comprises the connected via a linker molecule, where sense region and the covalently connected via a linker molecule. The linker molecule is a polynucleotide linker. The sense region comprises a 3'-terminal overhang and the antisense region comprises a 3'-terminal overhang second compri
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                                                                               Query Match
Best Local Similarity
Matches 16; Conserv
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05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
06-JUN-2002;
29-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                 Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 11; Page 48; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             characterizing gene function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BEIG/)
                                                                                                                                                                                                               molecules of the invention.
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MCSWIGGEN J A.
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                                     AAAGCCACCCAAGGCA 16
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7 2001US-0337055P.
7 2002US-0358580P.
7 2002US-0363124P.
7 2002US-0363124P.
7 2002US-04009187.
7 2002US-04067842P.
7 2002US-0408378P.
7 2002US-0408378P.
                                                                                 100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                     BP; 8 A; 8 C; 3 G; 0 T; 0 U;
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                                                                                                     Score 16; DB 11;
Pred. No. 1.5e+02;
                                                                                      Mismatches
                                                                                                                                                                     0 Other;
                                                                                                                         Length 19;
                                                                                      Indels
                                                                                      <u>.</u>
                                                                                   Gaps
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Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                 Hepatitis B virus short interfering nucleic acid (siNA) #700
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Hepatitis B virus

US2003206887-A1

16-SEP-2002; 2002US-00244647

05-DEC-2001; 20-FEB-2002; 11-MAR-2002; 14-MAY-1992; 07-FEB-1994; 08-NOV-1999; 20-MAR-2000; 2001US-00877478 2001US-0296876P 2001US-0335059P 2001US-0337055P 2002US-03581240P 2002US-03631240P 2002US-03631240P 2002US-03631240P 2000US-00531025. 2000US-00636385. 2000US-00696347. 92US-00882712. 94US-00193627. 99US-00436430.

(MORR/) 09-SEP-2002; 29-AUG-2002; 05-SEP-2002; (MORR/) MORRISSEY D. (MCSW/) MCSWIGGEN J A. (BEIG/) BEIGELMAN L. 06-JUN-2002; 2002US-0409293P 2002US-0386782P

Morrissey D, Mcswiggen JA, Beigelman

WPI; 2003-901032/82.

New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.

Claim 11; Page 41; 72pp; English.

that down-regulates expression of a hepatitis B virus (HBV) gene by RNA (interference or that inhibits HBV replication. Also disclosed are the CC following: (i) a method of modulating the expression of a HBV gene in a CC tissue explant; (ii)) a method of generating a library of sNA constructs complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing one or more sNA complexity; (iii) a cell containing on The invention relates to a short interfering nucleic acid (siNA) molecule

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may also be used in clinical, industrial, environmental, agricultural and/or research settings. The present sequence represents 1 of 1504 HBV siNA molecules of the invention.
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Matches Query Match Best Local Similarity 16; Conservative 100.0%; 0; Score 16; DB 11; Pred. No. 1.5e+02; Migmatches 0 Length 19, Indels 0 Gaps

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US-08-480-220A-25
US-08-480-220A-25
US-08-64-404-25
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US-08-199-269-47
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Sequence 80393, A	Sequence 49, Appl	Sequence 49, Appl	Sequence 14, Appl	Sequence 14, Appl	Sequence 50, Appl	Sequence 50, Appl	-	Sequence 28, Appl	Sequence 28, Appl	Sequence 99805, A	Sequence 40, Appl	-	Sequence 19, Appl	Sequence 19, Appl	Sequence 37, Appl	Sequence 37, Appl	Sequence 25, Appl

ALIGNMENTS

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US-08-281-106-48
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                                                                     Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 48, Applicat:
Patent No. 5646262
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 6668
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEFAX: 202 672 5399
                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 16 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/281,106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Antisense Oligonucleotides Against TITLE OF INVENTION: Hepatitis B Viral Replication NUMBER OF SEQUENCES: 56 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: KORBA, Brent E. APPLICANT: GERIN, John L.
                                                           Local b.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 20007-5109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                          Similarity
                                     AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/08281106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                       100.0%; Score 16;
ilarity 100.0%; Pred. No.
Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                  48:
                                                                                                                                                                                                                                                                                                                                                                               66683/112/GEUN
                                                                         Mismatches
                                                                                                            DB 1; Length 16;
                                                                         Indels
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                                                                       Gaps
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US-09-199-269-48

Application US/09199269

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 41, Application US/09155885A Patent No. 6709812 GENERAL INFORMATION:
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GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/199,269
FILING DATE: 25-No. 650353-1998
CLASSIFICATION: <UNKNOWN>
PRIOR APPLICATION DATA:
OFFICE OFFIC
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                          MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
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REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 66683/112/GEUN
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: F10ppy disk
                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 48:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                            CITY: ARLINGTON
STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGCCACCCAAGGCA 16
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TELEFAX: 202 672 5399
ZIP: 22201-4714
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US-08-480-220A-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,220A
FILING DATE: 07 JUN 1995
CLASSIFICATION: 435
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: POTEMBRK: PT185111 E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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                                                                                                                                                                                                                                ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30 (EF

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/155,885A

FILING DATE: 08-Oct-1998

CLASSIFICATION CUNKNOWN>

PRIOR APPLICATION NUMBER: PCT/EP97/02002

APPLICATION NUMBER: PCT/EP97/02002

FILING DATE: 21-APR-1997

APPLICATION NUMBER: EP 96870053.4

FILING DATE: 19-APR-1996

PILING DATE: 19-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories D377/AP6D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Birkenmeye APPLICANT: Mushahwar,
                                                                                                                                                                                                                                                                                                                                              STREET: 100 Abbott Park Road CITY: Abbott Park
                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                             STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
TELEFAX: (703) 816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                        Illinois
                                                                                                                                                                                                                                                                                                       USA
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Birkenmeyer, La.--
Birkenmeyer, La.--
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      5770.US.01
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Pred. No. 22;
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                                                                                                                                                                         Version #1.30
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                                                                                           INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 18 base pairs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                             CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
FILING DATE: 07-JUN-1995
ATTORNEY/AGENT IMFORMATION:
                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 28-MAY-19
                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 60064-35008
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Birkenmeye
APPLICANT: Mushahwar,
                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                    NAME: Porembski, Priscilla E. REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                             TYPE: nucleic acid
STRANDEDNESS: sing
 NAME/KEY:
                                                TOPOLOGY:
                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 100 Abbott Park Road CITY: Abbott Park
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TELEFAX: 708/938-2623
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    Application US/08864404
5955598

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5' phosphate
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28-MAY-1997
                              synthetic DNA
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Pred. No.
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US-08-864-404-22
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                                 Matches
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Patent No. 6709812
GENERAL INFORMATION:
                                                     Best Local
                                                                Query Match
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Best Local Similarity
                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 49: SEQUENCE CHARACTERISTICS:
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NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC_COMPATIBLE
COMPUTER: IBM PC_COMPATIBLE
OPERATING SYSTEM: PC_DOS/MS_DOS
OPERATING SYSTEM: PC_DOS/MS_DOS
OPERATING SYSTEM: PC_DOS/MS_DOS
SOFTWARE: Patentin Release #1.0, Vers
RAPPLICATION DATA:
APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-Oct-1998
CLASSIFICATION OATA:
APPLICATION UNMBER: PCT/EP97/02002
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/AGENT INFORMATION:
NUMBER: SEDOSE B.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION:
                                                                                                                                    TOPOLOGY: 1in
MOLECULE TYPE: DNI
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MAERTENS, GEERT TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: STUYVER, LIEVEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
   1 AAAGCCACCCAAGGCA 16
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                                                   Similarity
                                                                                                                                                                                                                                                                                                                                        NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 2551-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: ARLINGTON STATE: VIRGINIA
                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                            TELEFAX:
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ilarity 100.0%;
Conservative 0
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Conservative (
                                                                                                                    DESCRIPTION: SEQ ID NO:
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Pred. No.
                                                   Score 16; DB
Pred. No. 23;
                                   Mismatches
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                                                                                                                      49:
                                                                DB 4; Length 18;
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                                 Indels
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                                                                                                                                                                                                                   Sequence 25, Application US/08480220A Patent No. 5667974 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 07 JUN 1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: POTEMBSKI, PTISCILLA E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.U
TELECOMPUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 19 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                            APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: syntheti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/480,220A
                                                                                                        NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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STREET: 100 Abbott Park Road
CITY: Abbott Park
                                  STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: 5' fluorescein LOCATION: 1
                    COUNTRY:
                                                       CITY: Abbott Park
                                                                    STREET:
                                                                                       ADDRESSEE:
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No. 5667974
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60064-3500
                                Illinois
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                                                                    B: Abbott Laboratories D377/AP6E
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
COMPUTER: IBM PC Compatible
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/864,404
FILING DATE: 28-WAY-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
FILING DATE: 07-UNU-1995
ATTORNEY/AGENT INFORMATION:
NAME: POTembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 21, Application US/08864404 Patent No. 5955598
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Best Local
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SEQUENCE CHARACTERISTICS:
LENGTH: 19 base pairs
TYPE: nucleic acid
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NAME: Porembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: PAtentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,220A
FILING DATE: 07 JUN 1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 100 Abbott
CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: 5' fluorescein LOCATION: 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                           100 Abbott Park Road
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Pred. No. 23;
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INFORMATION FOR SEQ ID NO:

21:

TELEFAX:

708/938-2623

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Best Local Similarity
                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/864,404
EILING DATE: 28-MAY-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: 08/480,220
EILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             atent No. 5955598
GENERAL INFORMATION:
                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                        NAME: Porembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REPERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Birkenmeyer,
APPLICANT: Mushahwar, I
TITLE OF INVENTION: MET
TITLE OF INVENTION: SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 100 Abbott Park Road CITY: Abbott Park
                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                          TELEFAX:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single TOPOLOGY: linear
                                             LOCATION:
                                                         NAME/KEY:
                                                                                                        TOPOLOGY:
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                                                                                        synthetic DNA
                                                                                                                   single
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Pred. No.
 Score 16;
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 DB 2;
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Length 19;
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                                                                                                                        PCT-US96-10984-18
; Sequence 18, Application PC/TUS9610984
; GENERAL INFORMATION:
APPLICANT: Kevin Anderson and Lex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-501-968-18
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                                                                                                                                                                                                                                                                                                          Query Match
Best Local 9
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION UNMBER: US/08/5
FILING DATE: herewith
CLASSIFICATION: 514
PRIOR APPLICATION DATA: none
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: IS
TELECOMMUNICATION INFORMATION:
                                                                                         APPLICANT: Kevin Anderson and Lex Cowsert
TITLE OF INVENTION: Antisense Inhibition of Hepatitis
TITLE OF INVENTION: Virus Replication
                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL:
ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                            NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Kevin Anderson and Lex Cowsert TITLE OF INVENTION: Antisense Inhibition of Hepatitis TITLE OF INVENTION: Virus Replication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM 486
OPERATING SYSTEM:
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                               STREET:
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SSEE: Jane Massey Licata, Esq.
F: 210 Lake Drive East, Suite 201
Cherry Hill
                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
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210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                           100.0%; Score 16; DB ilarity 100.0%; Pred. No. 23; Conservative 0; Mismatches
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COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb
MEDIUM TYPE: STORAGE

COUNTRY:

08002

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Best Local (
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NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISPH
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 779-2400
                              ATTORNEY/AGBNT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION UNMER: 29,768
REFERENCE/DOCKET NUMBER: 6668
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEFAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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OPERATING SYSTEM: WINDOWS FOR WORKGROUPS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS: Foley & L
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: KORBA, Brent E.

APPLICANT: GERIN, John L.

TITLE OF INVENTION: Antisense Oligonucleotides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
                                                                                                                                                                                                                                                                                                                                                      STREET: 3000 CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: POFILING DATE: herewith
                                                                                                                                                                 CLASSIFICATION: 514
                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
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                                                                                                                                                                                                      US/08/281,106
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45:
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GENERAL INFORMATION:

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RESULT 15
US-08-287-337A-5
; Sequence 5, Application US/08287337A
; Patent No. 5728318
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Best Local Similarity
Matches 16; Conserv
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                                                                                                                                                                   Matches
                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:

FILING DATE:

CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 6668
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEPAX: 202 672 5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 21 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: YES
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20007-5109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/281,106
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APPLICANT: GERIN, John L.
TITLE OF INVENTION: Antisense Oligonucleotides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 5
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TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                     Local
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                                                                                                                                                                   16;
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Similarity 100.0%; 1
16; Conservative 0;
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Pred. No.
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: PC-DOS/MS-DOS
SOTTWARE: ASCII Cext
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/287,337A
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER:
FILING DATE:
FILING DATE:
CLASSIFICATION NUMBER:
FILING DATE:
FILING DATE:
CLASSIFICATION NUMBER:
FILING DATE:
FILING DAT
Search completed: March 29, 2005, 09:35:41 Job time : 95 secs
                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 16; DB 1; Length 21; Best Local Similarity 100.0%; Pred. No. 23; Matches 16; Conservative 0; Mismatches 0; Indels
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TITLE OF INVENTION: ANTIVIRAL OLIGONUCLOETIDE
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: BOSTON
STATE: MASSACHUSETTS
COUNTRY: USA
ZIP: 02109
                                                                                                                                                                                                    6 AAAGCCACCCAAGGCA 21
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run on:
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                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                       Score
                                                                                                                                      Query
Match
               1000.0
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Gapop 10.0 , Gapext 1.0
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16
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                                                                                                                                                                                                                                        Published_Applications_NA:*
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                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
            US-09-888-164-29
US-10-433-792-41
US-09-877-478-1755
US-09-877-478-2378
US-10-342-902-1755
US-10-342-902-2378
US-10-669-841-1755
US-10-669-841-2181
US-10-433-792-49
US-10-433-792-49
US-10-244-647-54
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Sequence 29, Appl
Sequence 41, Appl
Sequence 1755, Ap
Sequence 2378, Ap
Sequence 2378, Ap
Sequence 21755, Ap
Sequence 2181, Ap
Sequence 49, Appl
Sequence 49, Appl
Sequence 54, Appl
Sequence 574, App
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-10-826-966-1	-10-826-966-1	-10-757-	-10-757-803-1	-10-444-853A-18	-10-444-853A	-10-244-647-134	-10-244-647-134	-244-647-7	-10-244-647-6	-10-669-84	-10-669-841-41	-10-342-902-23	-10-342-902-41	9-877-478-2	-09-877-478-41	-10-035-833A-368	-10-035-833A	-10-809-189-9980	-10-032-	-10-147-679A-	-10-343-324-	-10-244-647-	-10-244-647-6	-10-669-841-21	-10-342-902-23	77-47	0-244-647-129	47-122	47-12	0-244-647-122	44-647-70	44-647-5	
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ALIGNMENTS

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CURRENT APPLICATION NUMBER: US/09/888,164
CURRENT FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: 09/282,455
PRIOR FILING DATE: 1999-03-31
PRIOR PILING DATE: 1999-03-31
PRIOR PILING DATE: 1996-11-22
PRIOR APPLICATION NUMBER: 60/007,480
PRIOR FILING DATE: 1995-11-22
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 29
LENGTH: 16
S
                                                                                                                                           ; FEATURE:
; OTHER INFORMATION: Control oligomer
US-09-888-164-29
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US-09-888-164-29
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Publication No. US20030119724A1
GENERAL INFORMATION:
APPLICANT: Ts'o, Paul O.P.
APPLICANT: Hangeland, Jon
APPLICANT: Deamond, Scott
                                              Query Match 100.0%; Score 16; DB 10; Best Local Similarity 100.0%; Pred. No. 1.6e+02; Matches 16; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Deamond, Scott
APPLICANT: Roby, Clinton
TITLE OF INVENTION: LIGANDS TO ENHANCE CELLULAR UPTAKE OF BIOMOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 212241
                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                        TYPE: DNA
    1 AAAGCCACCCAAGGCA 16
                                                                                            Length 16;
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                                                                                                                                                                                                                                              US-09-877-478-1755/c
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                                                                                                                   Sequence 1755, Application US/09877478 Publication No. US20030068301A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
APPLICANT: Ribozyme Pharmaceuticals, Inc. APPLICANT: Draper, Kenneth APPLICANT: Blatt, Larry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 41:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/453,792
FILING DATE: 04-Jun-2003
CLASSIFICATION: <undersional content of the c
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REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 2551-5
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: NIXON & VANDERHYE P.C.
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TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
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TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: VIRGINIA
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Pred. No. 1.6e+02;
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                                                                                                PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR FILING DATE: 1994-02-07
PRIOR PELICATION NUMBER: US 08/433,993
PRIOR FILING DATE: 1995-05-04
PRIOR APPLICATION NUMBER: US 08/434,504
PRIOR FILING DATE: 1995-05-04
PRIOR FILING DATE: 1995-11-08
PRIOR FILING DATE: 1999-11-08
                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR APPLICATION NUMBER: US 09/636,347
PRIOR APPLICATION NUMBER: US 09/696,347
PRIOR FILING DATE: 2000-10-24
PRIOR FILING DATE: 2000-10-24
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SEQ ID NO 1755
LENGTH: 17
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PRIOR FILLING DATE: 1992-05-14
PRIOR PELLING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILLING DATE: 2000-03-20
PRIOR PELLIANG DATE: 2000-03-20
PRIOR PELLIANG DATE: 2000-08-09
PRIOR PELLIANG DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR APPLICATION NUMBER: US 08/433,993
PRIOR PILLING DATE: 1994-02-07
PRIOR APPLICATION NUMBER: US 08/434,504
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILLING DATE: 1995-11-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2378, Application US/09877478 Publication No. US20030068301A1
SOFTWARE: PatentIn
SEQ ID NO 2378
LENGTH: 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: McSwiggen, Jim
APPLICANT: Morrissey, Dave
TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication
FILE REFERENCE: MBHB00-845-H (400/029)
CURRENT APPLICATION NUMBER: US/09/877,478
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CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
                                                                               NUMBER OF SEQ ID NOS: 6586
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Morrissey, Dave
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                                                                                                                                                                                                                                        RESULT 6
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                                                                                                                                                                                                                   US-10-342-902-2378/c
                                                                                                                                         Sequence 2378, Application US/10342902
Publication No. US20040054156A1
GENERAL INFORMATION:
APPLICANT: Sirna Therapeutics, Inc.
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Best Local Similarity
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APPLICANT:
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APPLICANT: McSwiggen, Jim APPLICANT: Mcriissey, Dave TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication FILE REFERENCE: 400/075 (MBHB00-845-I) CURRENT APPLICATION NUMBER: US/10/342,902 CURRENT FILING DATE: 2003-01-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 09/877,478
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/531,025
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16; Conservative
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Blatt, Larry
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Morrissey, Dave
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Blatt, Larry
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PRIOR FILING DATE: 2002-03-26
PRIOR FILING DATE: 2002-03-26
PRIOR PPLICATION NUMBER: US 60/296,876
PRIOR PRIOR APPLICATION NUMBER: US 60/335,059
PRIOR PILING DATE: 2001-10-24
PRIOR PILING DATE: 2001-12-05
PRIOR PILING DATE: 2001-12-05
PRIOR PILING DATE: 2001-12-05
PRIOR PILING DATE: 2002-02-00
PRIOR PILING DATE: 2002-03-11
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR PILING DATE: 2002-03-11
PRIOR APPLICATION NUMBER: US 00/363,124
PRIOR PILING DATE: 2001-03-26
PRIOR PILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: US 09/817,879
PRIOR APPLICATION NUMBER: US 09/740,332
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Best Local Similarity
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                                           PRIOR FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: US 09/611,931
PRIOR FILING DATE: 2000-07-07
PRIOR APPLICATION NUMBER: US 09/504,321
PRIOR FILING DATE: 2000-02-15
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TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPATITILE OF INVENTION: VIRUS REPLICATION
FILE OF INVENTION: VIRUS REPLICATION
FILE REFERENCE: 400/042US (MBHB02-249-E)
CURRENT APPLICATION NUMBER: US/10/669,841
CURRENT FILING DATE: 2003-09-23
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PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILING DATE: 1999-11-08
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Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 16207
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TYPE: RNA
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FILING DATE: 2000-08-09
APPLICATION NUMBER: US 09/696,347
FILING DATE: 2000-10-24
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Kenneth, Draper
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Pred. No. 1.6e+02;
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; ORGANISM: Hepatitis B Virus
US-10-669-841-2181
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SEQ ID NO 2181
LENGTH: 17
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APPLICATION NUMBER: US 09/817,879
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James, McSwiggen
David, Morrissey
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RESULT 10
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Best Local Similarity
APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
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REFERENCE/DOCKET NUMBER: 2551-5
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-Oct-1998
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/10/453,792
APPLICATION CAPCHON CONTROL CONTRO
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
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TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 22201-4714
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RESULT 12
US-10-244-647-576/c
US-10-244-647-576/c
; Sequence 576, Applica
; Publication No. US200
; GENERAL INFORMATION:
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 574
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Best Local Similarity
Matches 16; Conserv
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PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
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PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
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CURRENT FILING DATE: 2003-04-14
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NUMBER OF SEQ ID NOS: 1524
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                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                                                                                                                                                                                                                                                               TYPE: RNA
ORGANISM: Artificial Sequence
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OTHER INFORMATION: Description
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                       Application US/10244647 o. US20030206887A1
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100.0%; Pred. No. 1.6e+02
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                                                                                                                                        ; OTHER INFORMATION: Description of Artificial Sequence: US-10-244-647-577
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CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.0
SEQ ID NO 577
LENGTH: 19
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APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 576
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Best Local !
                                           Matches
                                                                 Query Match
Best Local Similarity
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APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus
TITLE OF INVENTION: Short Interfering Nucleic Acid (siNA)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR APPLICATION NUMBER: US 60/353,924
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR PILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR APPLICATION NUMBER: US 60/3976
PRIOR APPLICATION NUMBER: US 60/296,876
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APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus
TITLE OF INVENTION: Short Interfering Nucleic Acid (siNA)
FILE REFERENCE: 400/060 (MBHB02-1000)
                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2001-06
NUMBER OF SEQ ID NOS: 1524
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TYPE: RNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                       TYPE: RNA
ORGANISM: Artificial Sequence
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AAAGCCACCCAAGGCA 16
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                                           Conservative
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Pred. No. 1.6e+02;
0; Mismatches 0;
                                                               Score 16; DB 17;
Pred. No. 1.6e+02;
                                              Mismatches
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APPLICANT: Morrisey, David
APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
ITITLE OF INVENTION: RNA Interfering Nucleic Acid ($1NA)
FILE OF INVENTION: Short Interfering Nucleic Acid ($1NA)
FILE REFERENCE: 400/060 (MBH002-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR APPL
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US-10-244-647-700
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Best Local S
Matches 16
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Publication No. US20030206887A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.0 SEQ ID NO 700
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR TILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR PPLICATION NUMBER: PCT US02/09187
PRIOR PILING DATE: 2002-03-26
PRIOR PPLICATION NUMBER: US 60/296,876
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APPLICANT: MCSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (NBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
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NUMBER OF SEQ ID NOS: 1524
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; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: siNA antisense region US-10-244-647-1220
Query Match 100.0%; Score 16; DB 17; Length 19;
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Query Match 100.0%; Score 16; DB 17; Length 19; Best Local Similarity 100.0%; Pred. No. 1.6e+02; Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps Qy 1 AAAGCCAACGCAA16

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Search completed: March 29, 2005, 10:26:46
Job time : 306 secs

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Minimum DB seq length: 0 - A
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AU102426	BX660740	CC022480	AZ767497	BX190610	BJ037294	AZ807826	AI609582	CG426349	AZ648227	AI683766	AZ427682	AZ789688	BF026752	CG724617	AZ484720	CG722656	AZ957578	AA906759	AJ730200	20764000
AU102426	Arabidops	3591 1 2	1M0566008	Danio rer	BJ037294	2M0070L19	tw28c02.x	0180583-0	1M0517G12	tw53g05.x	1M0209115	2M0037008	601671969	1119082A0	1M0311H21	1119072H1	2M0224D05	ok78e10.8	AJ730200	111000111

ALIGNMENTS

JOURNAL MEDLINE PUBMED REFERENCE SOURCE ORGANISM VERSION KEYWORDS RESULT 1 AJ597693/c FEATURES COMMENT REFERENCE ACCESSION DEFINITION rocus TITLE JOURNAL TITLE AUTHORS AUTHORS misc_feature source Direct Submission

Direct Submission

Submitted (23-0CT-2003) Balzergue S., UMRGV, IMRA/CNRS, 2 rue

Submitted (23-0CT-2003) Balzergue S., UMRGV, IMRA/CNRS, 2 rue

Gaston Cremieux, 91057 Evry cedex, PRANCE

PCR was performed on DNA from transformants of Arabidopsis thaliana

plants from IMRA (Versailles). The DNA fragment(s) resulting from

the PCR were directly sequenced from the left or the right border

to determine the genomic sequence flanking the insertion. T-DNA

derived sequences were removed. Information to order the

corresponding mutant line and a link to a database providing a

graphical display of the insertion site are available at

http://dbsgap.versailles.inra.fr/publicines/. This sequence has

been generated in the framework of the French plant genomics

been generated in the framework of the French plant genomics

http://genoplante-info.infobiogen.fr). Brunaud, V., Balzergue, S., Dubreucq, B., Aubourg, S., Samson, F., Chauvin, S., Bechtold, N., Cruaud, C., DeRose, R., Pelletier, G., Lepiniec, L., Caboche, M. and Lecharny, A.
T-DNA integration into the Arabidopsis genome depends on sequences 2 (bases 1 to 34) Balzergue, S. Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis. AJ597693 34 bp 1 Arabidopsis thaliana T-DNA flanking Arabidopsis thaliana (thale cress) Arabidopsis thaliana GSS; left border; T-DNA flanking sequence EMBO Rep. 3 (12), 1152-1157 (2002) AJ597693.1 GI:37947321 AJ597693 22363535 2446565 pre-insertion sites genomic survey sequence. /db xref="taxon:3702" /clone="455C03" /clone_11b="Arabidopsis thaliana T-DNA insertion lines" 1...34 /mol_type="genomic DNA" /cultivar="Wassillewskija" organism="Arabidopsis thaliana" ocation/Qualifiers DNA DNA linear GSS 15-JAN-2004 sequence, left border, clone

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RESULT 3
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Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
The Salk Institute for Bood, La Jolla, CA 92037, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AAAGCCACCCAAGGCA 16
BX227597 45 bp DNA linear GSS 29-JAN-Danio rerio genomic clone DXEY-281G18, genomic survey sequence.
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Tel: 858 453 4100 x1752
Fax: 858 558 6379
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A Sequence-Indexed Library of Insertion Mutations in the Arabidopsis Genome Propublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BZ288461 40 bp DNA linear GSS 24-OCT-SALK 021847.34.20.x Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana genomic clone SALK_021847.34.20.x, genomic
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/clone lib="Arabidopsis thaliana TDNA insertion lines"
/clone lib="Arabidopsis thaliana TDNA insertion lines
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
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left border"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Campus, Hinkton, Cambridgeshire, CB10 1SA, U humquery@sanger.ac.uk Unpublished This sequence was generated from the T7 end is part of the Daniokey BAC Library created Keygene. Further details: http://www.sanger.ac.uk/Projects/D_rerio/.
                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 48)
Humphray, S.J., Huckle, E. and Durham, J.L.
Direct Submission
Submitted (27-DAN-2003) The Sanger Institute, W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AAAGCCACCCAAGGCA 16
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1 (bases 1 to 45)
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Danio rerio
                                                                                                                                                                                                         http://www.sanger.ac.uk/Projects/D_rerio/.
Location/Qualifiers
                                                                                                                                                                                                                                            This sequence was generated from the SP6 end of BAC 268K13. 268K13 is part of the Daniokey BAC Library created by R. Plasterk and N.V Keygene. Further details:
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                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actihopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
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BX223641.1
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                                                                        /mol_type="genomic DNA"
/db xref="taxon:7955"
/clone="bKY13"
/clone="bype="Testis"
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/note="vector_pIndigoBAC-536"
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/note="vector pIndigoBAC-536"
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/db_xref="taxon:7955"
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Score 12.4; DB 9;
Pred. No. 1.1e+05;
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Pred. No. 6.5e+04
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by R. Plasterk and N.V.
                                                                                                                                                                                                                                                                                                                          Wellcome Trust Genome . E-mail enquiries:
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Best Local :
     JOURNAL MEDLINE
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                                                                                                                     AUTHORS
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l (bases 1 to 50)

Suzuki, Y., Taira, H., Tsunoda, T., Mizushima-Sugano, J., Sese, J., Hata, H., Ota, T., Isogai, T., Tanaka, T., Morishita, S., Okubo, K., Sakaki, Y., Nakamura, Y., Suyama, A. and Sugano, S. Diverse transcriptional initiation revealed by fine, large-scal mapping of mRNA start sites
EMBO Rep. 2 (5), 388-393 (2001)
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                                                                                                                                                  Homo sapiens (human)
Homo sapiens
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene are available upon request from BayGenomics. Annotation information available from http://bayGenomics.ucsf.edu/cgi-bin/BayGearch.py? OPTION-EXACTETYPE-CELL_LINE&KEY=RRK477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: info@baygenomics.ucsf.edu
Sequence tag generated by 5' RACE of total RNA from gene trap Education of target
cell line. ES cell lines harboring insertion mutation of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          http://baygenomics.ucsf.edu/
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
CC798997
CC798997.2 GI:46014580
CC799887.2 GI:46014580
GSS.
Mus musculus (house mouse)
                                                                                                                                                                                                                                              AU104174
AU104174.1 GI:13553695
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Mammalia; Eutheria; Rodentia;
1 (bases 1 to 46)
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RRK477 BayGenomics
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/note="Vector: pGT2Lxf"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2004 this sequence version replaced gi:32394210
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Pred. No. 2.1e+05
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Library pGT2Lxf Mus musculus cDNA,
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                                                                                                                                                                                                                                                                                                                       Pfotenhauerstrasse 108,01307 Dre
Tel: 0049 351 210 2620
Pax: 0049 351 210 1489
Email: tanaka@mpi-cbg.de
Plate: NT144B row: 07 column:
Seg primer: GCA CAT TAG GCC TAT
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost
Amphibia; Batrachia; Caudata; Salamandroidea; Ambystomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CO794661 20 bp mRNA linear EST 05-AUG-NT1144B A07 St18-22 Neural tube (NT) Ambystoma mexicanum cDNA 5' similar to hypothetical protein, mRNA sequence.
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Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp
Suzuki,Y., Yoshitomo-Nakagawa,K., Maruyama,K., Suyama,A.
Suzuki,Y., Construction and characterization of a full
length-enriched and a 5'-end-enriched cDNA library. Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Habermann, B., Bebin, A.G., Herklotz, S., Volkmer, M., Eckelt, K., Pehlke, K., Epperlein, H.H., Schackert, H.K., Wiebe, G. and Tanaka, E.N. Ambystoma mexicanum EST sequencing project: Analysis of 17,352 expressed sequence tags from embryonic and regenerating blastema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Max Planck Institute of Molecular Cell Biology
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Ambystoma mexicanum (axolotl)
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                                    /tissue_type="Neural Tube, Notochord, Somites"
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Size_fractionated_mRNA_was_polydT_primed_and_cloned_into
NotI-SalI_site_of_pCMVSport6. Bacterial_host_is
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TAG_LIB=NT"
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                                                                                                                                                                                                                                                            organism="Ambystoma mexicanum"
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86.7%;
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Pred. No. 2.1e+05;
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Glossina morsitans morsitans
Glossina morsitans morsitans
Glossina morsitans morsitans
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Hippoboscoidea; Glossinidae; Glossina.
1 (bases 1 to 35)
                                                                                                                                                                           1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                      13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       School of Biological Sciences,
University of Wales,
Bangor LL57 2UW
All clones with suffix qlc are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BX567608 Glossina morsitans morsitans adult infected gut Glossina morsitans adult infected gut Glossina morsitans morsitans morsitans cDNA clone Tse89a03_plc, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13;
1M0346B24F Mouse 10kb plasmid UUGC1M library Mus musculus clone UUGC1M0346B24 F, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pathogen Sequencing Unit
The Sanger Institute The Wellcome Trust Genome Campus
Hinxton, Cambridge, CB10 1SA, UK
Request for clones, please contact: Mike Lehane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lehane, M.J., Aksoy, S., Gibson, W., Kerhornou, A., Berriman, M., Hamilton, J., Soares, M.B., Bonaldo, M.F., Lehane, S. and Hall, N. Adult midgut expressed sequence tags from the tsetse fly Glossina morsitans morsitans and expression analysis of putative immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AAAGCCACCCAAGGCA 16
                                           AZ505596
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Genome Biol. 4 (10), R63 (2003)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clones with suffix qlc are reverse primer reads starting at of the cDNA all plc reads are from 3^\prime end.
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                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                         /note="country: Zimbabwe; EST
T.brucei"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Glossina morsitans morsitans"
/mol type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                         /clone="Tse89a03_p1c"
/tissue_type="adult infected gut"
/clone_lib="Glossina morsitans mo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sub_species="morsitans"
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81.2%;
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Pred. No. 4.2e+05;
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                                                                                                                                                     19
  AI597737 37 bp mRNA linear EST 21-APR-1999 tu91b01.x1 NCI CGAP Gas4 Homo sapiens cDNA clone IWAGE:2258377 3' similar to TR:Q08805 Q08805 SALIVARY PROLINE-RICH PROTEIN L ;, mRNA
                                                                                                                                                                                                                                      13;
                                                                                                                                                                                          1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Class: plasmid ends
High quality sequence stop: 36.
Location/Qualifiers
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Insert Length: 10000 Std Error:
Plate: 0346 row: B column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert B. University of Utah University of Utah
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 801 585 5606
Fax: 801 585 7177
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse whole genome scaffolding with paired end reads from 10kb
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
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AZ505596.1 GI:10686912
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                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                       was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 0.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMM2 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/clone_lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: pw1042nv, purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/mol_type="genomic DNA"
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(http://www.jax.org/resources/documents/dnares/).
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81.2%;
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Pred. No. 4.2e+05;
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                                                                                                                                                                                                                                                                    BF211603
BF211603.1
EST.
                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 37)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
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AI597737
AI597737.1 GI:4606785
EST.
                                                                                                                                                                                                                                                                                                                                              BF211603
601812103F1 NIH_MGC_54 Homo e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tissue Procurement: Christopher Moskaluk, M.D., Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
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cDNA Library Preparation: CLONETECH Laboratories, I cDNA Library Arrayed by: The I.M.A.G.E. Consortium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="IMAGE:2258377"
/tissue type="poorly differentiated adenocarcinoma with fitsue type="poorly differentiated adenocarcinoma with signet ring cell features"
/lab_host="DH10B"
/lab_host="DH10B"
/clone lib="NCI_CGAP_Gas4"
/note="Organ: stomach; Vector: pCMV-SPORT6; Site_1: Sall fote_2: NotI; Cloned unidirectionally. Primer: Oligo di Average insert size 1.69 kb. Life Technologies catalog #
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/db_xref="taxon:9606"
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mol_type="mRNA"
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81.2%;
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Pred. No. 4.2e+05;
0; Mismatches 3;
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s cDNA clone IMA
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m (LLNL)
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SOURCE
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TITLE
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Best Local Similarity
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AI690571
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A1690571 40 bp mRNA linear EST 27-MAY-1: tq02a02.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2207594 3' similar to TR:063545 063545 NADH_DEHYDROGENASE_SUBUNIT 5 ;, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AAAGCCACCCAAGGCA 16
                                                                                                                                                      Trace considered overall poor quality Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                              CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D.,
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tumor Gene Index
Unpublished (1997)
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Plate: LLCM874 row: e column:
High quality sequence stop: 37.
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Clone distribution: MGC clone distribution information can
found through the I.M.A.G.B. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
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                                                                                                                    quality sequence
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5'-ATTCTAGAGGCCGAGGGGCGACATG-dT(30)BN-3' (where B = A, C, C, or G and N = A, C, G, or T). Average insert size
1.75 kb (range 0.9-4.0 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Paic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db xref="teaxon:9606"
/clone="IMAGE:4046569"
/tlssue_type="from chronic myelogenous leukemia"
/lab_host="DH108 (T1 phage-resistant)"
/lab_host="NIH MGC_54"
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organism="Homo sapiens"/
                                                                         ocation/Qualifiers
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Pred. No. 4.2e+05;
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R50470/c
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Best Local S
Matches 13
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JOURNAL
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1 (bases 1 to 43)

Hillier_L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Hillier,L., Clark,N., Eucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                  Email: est@watson.wustl.edu
High quality sequence starts: 1
High quality sequence stops: 1
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R50470 43 bp mRNA linear EST 18-MAY-
yj56h09.r1 Soares breast 2NbHBst Homo sapiens cDNA clone
IMAGE:152801 5', similar to SP:ATPQ_BOVIN P13620 ATP SYNTHASE D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R50470
R50470.1 GI:812372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The WashU-Merck EST Project Unpublished (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                         Possible reversed clone: similarity on wrong strand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                 primer: M13RP1
                                                                                                                                                                                                                                                                                                                        quality sequence stop: 1.
Location/Qualifiers
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/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.45 kb. Life Technologies catalog #:
11541-018"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /tissue_type="poorly-differentiated endometrial adenocarcinoma, 2 pooled tumors"
/lab_host="DHIOB"
               double-stranded cDNA was ligated to Eco RI adaptors
                                                                                                                                                                      /db_xref="taxon:9606"
/clone="IMAGE:152801"
/sex="Female"
                                                                                                                                                                                                                                   /mol_type="mRNA"
/db_xref="GDB:565050"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="IMAGE: 2207594"
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                                                                                                                                                                                                                                                                           organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.0%;
81.2%;
                                                                                                                                                                                                                                                       type="mRNA"
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Pred. No. 4.3e+05;
0; Mismatches 3;
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AI355812
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCT-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AI355812
46 bp mRNA linear EST 04-JAN-1999 gt94h07.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:1962973 3' similar to SW:PRP2_HUMAN P02812 SALIVARY PROLINE-RICH PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 46) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Trace considered overall poor quality Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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                                                                                                         Similarity
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                                          AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     quality sequence stop: 1.
Location/Qualifiers
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                                                                                  Conservative
                                                                                                                                                                                           /clone lib="NCI_CGAP_CO14"
/note="Organ: colon; Vector: pCMV-SPORT6; Site 1: Sall;
Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.7 kb. Life Technologies catalog #:
11531-019"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Pharmacia), digested with Not I and cloned into the Not and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library went through one round of normalization to a Cot 230. Library constructed by Bento Soares and M.Fatima Bonaldo."
                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                    /tissue type="moderately-differentiated adenocarcinoma"
lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                            clone="IMAGE:1962973"
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Pred. No. 4.3e+05;
                                                                                         Mismatches
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                                                                                                                             Length 46;
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                                                                                       Gaps
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LOCUS
Search completed: March 29, 2005, 09:34:07 Job time: 1835 secs
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                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: est@watson.wustl.edu
Insert Size: 702
High quality sequence starts: 1
High quality sequence stops: 1
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Trace considered overall poor quality
Insert Length: 702 Std Error: 0.00
Seq primer: Promega -2inl3
High quality sequence stop: 1.
Location/Qualifiers
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R78378
R78378.1 GI:853488
EST.
                                                                                                            1 AAAGCCACCCAAGGCA 16
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Hiller,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M.,
Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F.,
Parsonskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R78378
46 bp mRNA linear EST 07-JUN-1995
yi78d11.81 Soares placenta Nb2HP Homo sapiens cDNA clone
yi78d21.45365 3' similar to gb:D11428 PERIPHERAL MYELIN PROTEIN 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Washington University School of Medicine
4444 Porest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The WashU-Merck EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1995
                                                                                                                                                                    Similarity
                                                                         AAGGCCACCCAGGCCA 44
                                                                                                                                                  Conservative
                                                                                                                                                                                                                                  /clone="IMAGE:145365"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="GDB:563967"
/db_xref="taxon:9606"
                                                                                                                                                                  70.0%; Score 11.2; DB 7;
81.2%; Pred. No. 4.3e+05;
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